

# NATIONAL FISHERMAN

APRIL  
1958



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MV ENDEAVOR

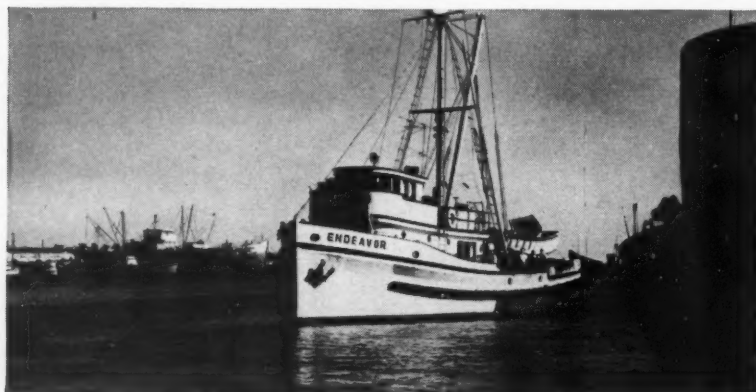
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**MV Endeavor**, carries crew of 12, stays out as long as 90 days on fishing trips into Mexican waters... goes as far South as Peru. She has capacity for catches of 110 tons of tuna, 150 tons of sardines or mackerel. Auxiliary power for refrigeration is supplied by a Caterpillar engine which also uses RPM DELO Oil.

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APRIL

# The Lookout

## Better Weather Forecasts Would Aid Fishermen

Considerable agitation has been evidenced recently for more detailed and more frequent weather reports for ships at sea. Recommendations for increased weather service have been made by various waterfront groups, with a view toward minimizing navigation dangers caused by sudden changes in wind and tide.

For most coastal areas, ship weather reports now are available only twice a day, whereas aircraft operators get reports every hour. It is generally agreed that boats need a minimum of four reports per day, with additional announcements if a wind is developing.

Weather broadcasts should be made not later than one hour and 15 minutes after information is released by the Weather Bureau. If delay beyond this period cannot be avoided, notice of the extent of delay should be given. The broadcast should state clearly what areas are covered by the weather predictions.

In order to satisfactorily meet the requirements of operators of fishing boats and small craft, weather broadcasts should include the following:

(1) A statement of the existing wind direction and strength in miles per hour, and a forecast covering the period with which the broadcast deals.

(2) Existing temperature and the expected trend.

(3) Existing barometric pressure and expected trend.

(4) A statement of expected visibility in miles during the period.

(5) Information as to existence of small craft warnings, and storm or wind warnings.

(6) A brief description of the previous synoptic chart, stating: (a) fronts—position and movement. (b) highs and lows—position and movement.

(7) A description of the existing State of the Sea at important points, including height and length, together with a forecast covering the period.

To be of greatest possible value, weather forecasts should contain as much detailed information as possible, particularly as to wind velocity, visibility and sea conditions. More adequate weather forecasting would be invaluable in promoting increased safety-at-sea.

# NATIONAL FISHERMAN

The Fishing Industry Magazine

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April 1958

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\*John J. Gobel of South Dartmouth, Mass. owner of the Decca Radar fitted dragger "Whaler" as reported in The Fishing Gazette

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## NEW TUG MALIE



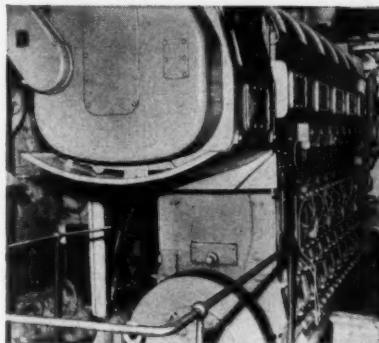
Tug *Malie*, designed by Carl J. Nordstrom, naval architect; built by Albina Engine & Machine Works, Portland, Oregon.

### Newest in the Oahu Railway Fleet of Fairbanks-Morse Powered Tugs

One of the biggest vessels built on this Pacific Coast in the past year, the *Malie* is powered by an 8-cylinder Model 38D Fairbanks-Morse direct-reversing marine Opposed-Piston diesel.

Her successful trials show that she has the power, speed and maneuverability to handle the larger ships that now call on Hawaiian ports. Top speed of 13 knots marks the *Malie* as a top performer for her other duties of big-barge towing between Honolulu and Molokai.

Compact power. Speed and maneuverability. Proved low maintenance. These are the design requirements fulfilled in more and more vessels today in all waters—by the most modern of marine diesel engines, the Fairbanks-Morse Opposed-Piston diesel. Determine what O-P performance from 300 to 3000 hp. can do for the vessel you own or are building. Write: Fairbanks, Morse & Co., Chicago 5, Illinois.



Compact, 8-cylinder Model 38D direct-reversible marine O-P provides 1280 hp. of responsive power for the new tug *Malie* of the Oahu Railway fleet.



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# STROUDSBURG HOISTS

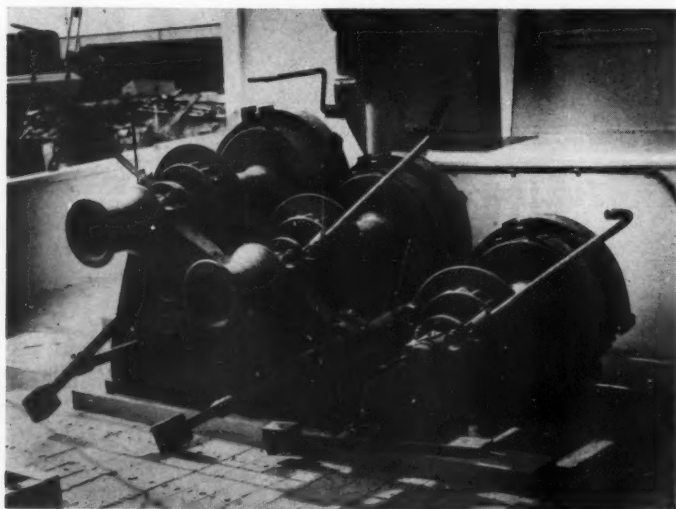
## Go to Mexico

on new

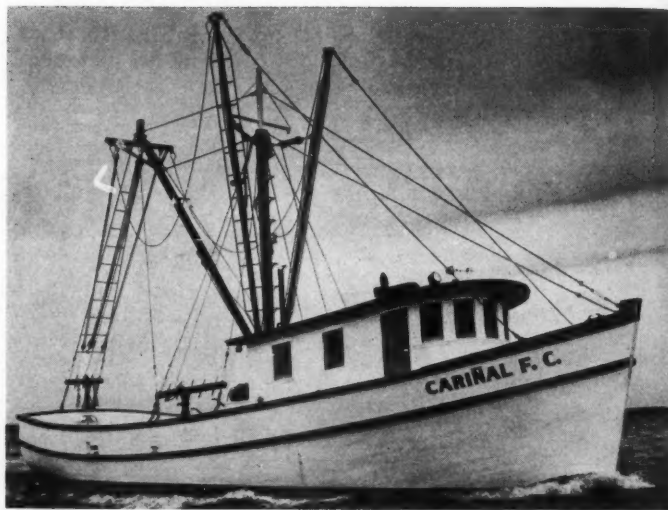
## DOUBLE RIG SHRIMP FLEET

A fleet of six new 53-foot shrimp trawlers—all equipped with Stroudsburg Hoists—have been delivered to Mexico. They are owned by Mariscos del Sur, S. A., whose principals are Manuel Zepeda Garcia and Paulino Ortiz Mier, and were built by Morehead City Shipbuilding Corp.

Fishing from the West Coast Mexican port of Salina Cruz, the new vessels carry the twin-boom Texas shrimp rig. They are equipped with the new Model 515½ T Stroudsburg Hoist, especially designed for double-rig operation.



Model 515½ T Stroudsburg Hoist with two winch heads



"Carinal F.C." one of six new 53' double-rig Mexican trawlers equipped with Stroudsburg Hoists.

The new model Stroudsburg Hoists are providing dependable and efficient performance on double rig trawlers throughout the shrimp industry. The winch heads are assembled on the middle and upper drums, and are engineered to give maximum convenience.

### Your Present Hoist Can Be Adapted for Twin Rig Operation

Stroudsburg special drum shafts and extra winch heads are available for installation on conventional type hoists now in service. This equipment can be readily assembled to adapt any Stroudsburg hoist for double rig operation.

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*"The Fishermen's Choice is a Stroudsburg Hoist"*

## ► Law of the Sea Conference

The United Nations Conference on the Law of the Sea opened in Geneva February 24 with 89 nations represented. The conference is considering problems connected with the limits of the territorial seas, regime of the high seas, contiguous zones, international fisheries, the continental shelf, and free access to the seas of land locked countries.

A reported agreement of the Conference to extend national jurisdiction over fisheries to a 12-mile limit drew criticism from Pacific Northwest fishing interests. Congressman Thor Tollefson said the limit was a victory for the United States from a security standpoint, but a serious blow to fishermen, who now fish up to the three mile limit off the coast of British Columbia.

Fishermen's organizations say that the establishment of such a limit would turn over to Canada, the Columbia River salmon stocks, which follow the Canadian coastline in their migrations. It is claimed that the limit would destroy 25 years of building up fish stocks through conservation, rehabilitation, and abstinence programs.

Meanwhile, shrimp interests in Texas have showed great concern and estimate that 30 percent of the shrimp catch would be lost should a 12-mile territorial zone be applied in the Gulf of Mexico.

The Conference defined the Continental shelf as ocean bottom beyond the territorial limits to a depth of 600 feet, or as far out as the ocean bed's natural resources can be exploited. The conference has yet to determine to what extent a coastal state shall be granted exclusive exploitation rights along this shelf.

In Washington, D. C. the House resolved, with the Senate concurring, that it is the sense of Congress that the President through such means as are appropriate, should take the necessary action to insure that the Conference on the Law of the Sea should consider, adopt, and implement the principle of abstention, and conservation with respect to fishing and fisheries.

The resolution calls for the inclusion in any agreement at the Geneva Conference, the means of protecting fishes that spawn in one country, such as Alaska salmon, and are later exploited by another country or countries.

## ► Fleet Additions Increase

Ninety-six vessels, of five net tons and over, received first documents as fishing craft during the first two months of 1958, or thirty-nine more than during the corresponding period of 1957.

The Gulf area led all others with 35 vessels, an increase of 25 over the year before, followed by the South Atlantic with an increase of 12, or 23 new vessels. The Pacific Coast jumped from 5 in 1957 to 13 in the

# FISHERY PROGRESS

same two month period of 1958. The Chesapeake area remained constant at 17 new boats. New England and Great Lakes each had 2 additions, and Middle Atlantic had 3, during the two-month's period.

## ► Alaska Fishery Regulations

Forecasts that the pink salmon runs in southeastern Alaska should be considerably better this year are reflected in the 1958 commercial fishing regulations. The action represents the first relaxation of the substantial curtailments which were instituted in 1954 in an effort to halt the decline of the salmon fishery.

The rehabilitation program consisted principally of a reduction in trap fishing effort and of increases in closed areas where purse seines are normally used. This resulted in increased escapements, particularly in the even-year cycle.

The use of drum seines and power blocks on purse seine boats in southeastern Alaska will be permitted this year. The regulations also permit utilization of a maximum of 246 of the 406 available fish trap sites for all Alaska. This compares with 247 sites used in 1956.

## ► Cooperative Marketing Bill

A bill was introduced in the Senate in March by Payne and Smith of Maine, to amend the Fisheries Cooperative Marketing Act. The bill proposes to amend the Act "Authorizing the associations of producers of aquatic products" to read:

No association of persons engaged in the fishing industry as fishermen, catching, collecting, or cultivating aquatic products, or as planters of aquatic products on public or private beds, and no officer, agent, employee, or member of any such association, shall be subject to the provisions of the Antitrust Acts with respect to any activity incident to catching, collecting, processing, or marketing of aquatic products.

The bill is intended to give American fishermen the same statutory treatment farmers and labor now have under section 6 of the Clayton Act of 1914.

## ► New England Market Research

A study of problems in the marketing of New England fishery products has been undertaken by a private research organization under the Saltonstall-Kennedy program. The study seeks to determine the areas in which sales promotion efforts can be best directed, for cod, haddock, ocean perch and other groundfish. A report was scheduled to be submitted to the Bureau of Commercial Fisheries about April 1. It would in turn be given to the New England Committee for the Aid of the

Groundfish Industry for consideration and action.

## ► North Pacific Wind Atlas

Publication of the *Wind Atlas of the North Pacific*, an aid in evaluating the operational difficulties which small fishing craft are likely to experience because of wind conditions, has been announced by the Department of the Interior.

The atlas was developed by the Bureau of Commercial Fisheries from wind and wave data collected over many decades by government agencies and from information developed by the Bureau on the effect of winds upon fishing craft efficiency.

The approach to the problem was based on the fact that there is an economic limit to the time that a fishing boat can ride the high seas without being able to fish. Regardless of the abundance of fish at a given place at a given time, if wind and sea prevent the vessel from getting a pay load the area has a reduced value as a commercial fishery.

The charts in the atlas indicate the percentage of each month in which wind speeds are likely to 20 to 35 knots an hour. Fishermen, with these estimates available, with current weather data at hand, and sometimes with specific information on the location and abundance of fish, can weigh their chances on whether or not a proposed trip might be profitable. They may also judge the probability of encountering gales which would hazard small boat operations.

## ► Bill for Predator Bounties

A bill introduced by Senator Warren G. Magnuson, would provide bounties on dogfish, sharks, sea lions, hair seals, and lamprey eels on the Pacific coast and Alaska. The bill would also provide for the establishment of predator-control zones for the control of fish-eating ducks, dolly varden trout, and other predators which eat salmon, herring, halibut, and other food fish.

According to Milo Moore, director of the Washington Department of Fisheries, the bill would provide a simple, inexpensive method of giving badly needed employment to the fishermen as well as getting rid of predators.

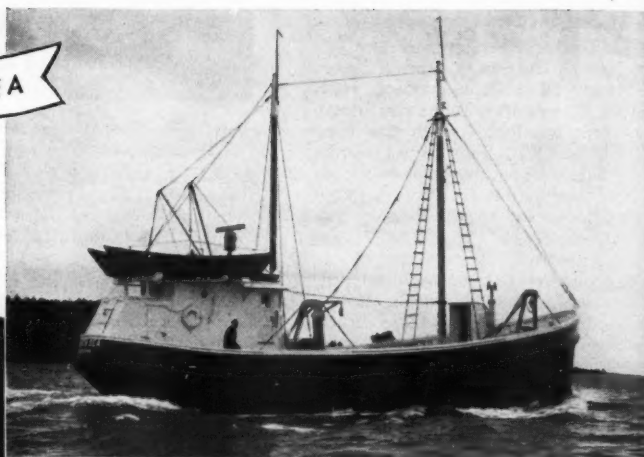
Opposition to the bill was expressed by Ross Leffler, assistant secretary of the Interior. Leffler said predators could be fought more efficiently and at less cost by the employment of hunters, who would concentrate in problem areas.

Under the bounty system, he said, predators are taken where the task is easiest and least expensive, and not necessarily where their taking does the most good.



**Dragger NORTH SEA**

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Captain Peter Andersen  
and his brother  
Engineer Harman Andersen



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Newly built for the Andersen brothers... and named for the waters where they fished as youngsters... the North Sea is a recent addition to the New Bedford fishing fleet.

Built from a round stern Condon design... by Harvey F. Gamage, Shipbuilder, South Bristol, Maine... this 72' dragger has a 17'6" beam, 9'6" draft. Tonnage is 67 gross, 46 net. The Fiberglass-insulated hold carries 65,000 lbs. of iced fish. Her full complement is nine men.

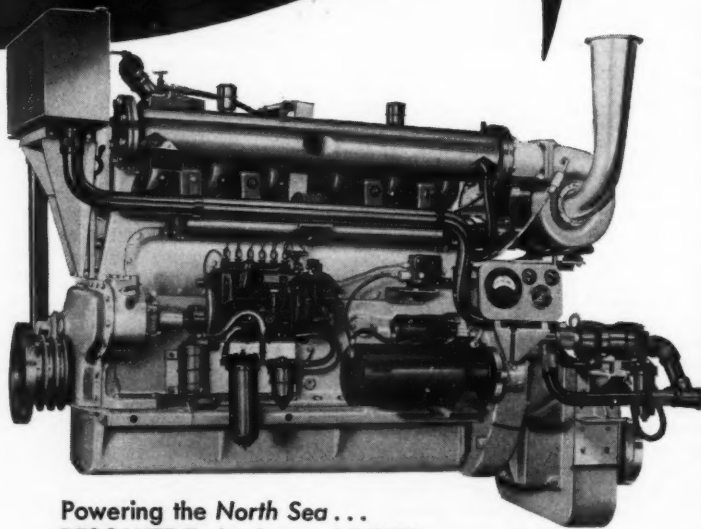
Powered by a Waukesha Resolute, the vessel's speed is 10 knots. As modern as marine engines come... this turbocharged Diesel puts out up to 260 hp on 24-hour duty. Fuel is carried in four welded steel tanks; 2000 gallon capacity.

Electronic equipment includes Edo radar, Bendix radio-telephone; Bendix depth recorder, Bendix direction finder and two Loran sets.

The Captain is Peter Andersen; the Engineer, Harman Andersen, his brother.

They are second generation fishermen; started as crewmen. Out of New Bedford for many years, the Andersen's have operated and owned several fishing boats.

Their choice of Waukesha power for the North Sea is a tribute to the reliability of Waukesha Marine Engines.



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For easy starting... safety... simplicity... smoothness... and economy—Waukesha Marine Diesels. Sizes: 426 to 5788 cu. in. displ.; Normal or Turbocharged up to 990 hp for 24-hour duty.

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375

# Electrical Fishing Gear Has Good Potential

Progress in development, basic principles of operation, and application in sea and fresh water fishing reported by international authority\*

THE electrical fishing technique has aroused great interest in many fishing countries during the last decade. The reason for such attention is due to the general increase of interest in fisheries, sea fisheries particularly, and the great success of electric current for fishing expected by many people.

Pulse-currents, which have a considerably greater physiological effect on the living organisms than the alternating and direct currents and have been used for a long time in human medicine such as electric shock therapy, were introduced into electrical fishing after the Second World War by German scientists, Denzer and Kreutzer. The electrical fishing method, restricted until that time to fresh water fisheries, could now be extended to sea fisheries. It was possible to design impulse generators driven by inboard engines, which for the first time effected marine fishes by means of electrical current.

Although electrical fishing is still in the initial stage, the great importance which electrical current will have for fisheries may be clearly recognized. At present, the attracting effect as well as the blocking, driving, paralyzing, and killing effect of electric current is used.

The gear can be used for removing useless and predatory fish. Any water, particularly river areas, can be fenced against migrating fish, which enables fish culture to be carried on in selected water areas. Electrical barriers can prevent valuable commercial fish such as salmon, from entering turbines, pumps, etc., where they would be killed or damaged. It can be used to guide fish to new river systems and fish ways, or drive them, by frightening, into fishing gear.

In sea fisheries, also, the use of electrical gear is developing. It is possible to concentrate shoal fish by keeping an electrode before the aperture of a trawl net and to paralyze them so that they cannot escape the trawl. An electrode placed in front of a midwater trawl will attract shoal fish even from the lower area of the electrical field and guide them into the catching area. This means the fish in the region beneath the net, which would not be otherwise taken, will be caught. An electrical midwater trawl also would enable otherwise unfishable, uneven bottom to be exploited, as the fish living near the ground are attracted towards the electrode.

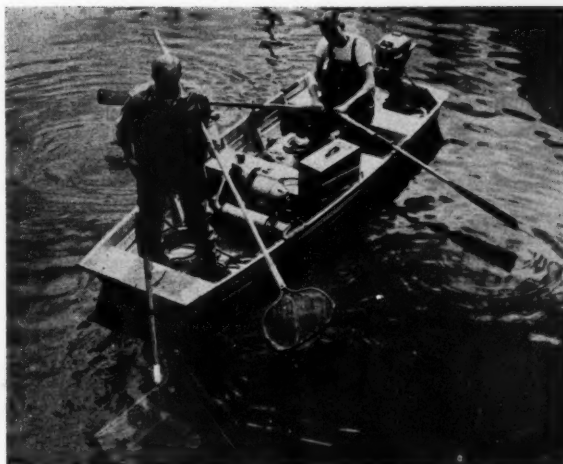
The blocking effect of the electric current can also be used in sea fisheries. Narrow areas, such as inlets, could be electrically fenced and the fish kept until required. It might be possible to drive fish shoals to a destination or erect a shark barrier.

There is little doubt about the importance of improved quality of the flesh of fish which are paralyzed or killed electrically, preventing the accumulation of lactic acid during the death struggle and delaying the onset and disappearance of rigor mortis.

## The Effect of Electric Current on Fish

When direct current is passed into the water, nearly all fish swim toward the anode, but before reaching it they are usually stupefied and turn upside down. When the current is turned off, they recover and swim away.

When alternating current is used, the fish do not swim toward the electrodes, but they take a position crosswise to the direction of the current. Most of the fish undergo a kind of hypnosis after the current is switched off, staying for several minutes in a lateral or dorsal position. When the hypnosis vanishes, the fish swim away as they do in the case of direct current.



Research biologist, Richard B. Thompson, Fish & Wildlife Service, Seattle, holds electrode, which stuns fish, in right hand and recovers them with dip net. The DC generator and electronic device in the boat sends current at a rate from 2 to 30 pulses per second. Rowing boat is Ben G. Patten. The boat is powered by a Johnson outboard.

When using interrupted or pulsating current, heavy vibrations occur in the body of the fish depending on the number of pulses. Soon the fish turns toward the anode and swims toward it.

There are three phases of reaction with the rise in current density. The first visible reaction of the fish is a vibration of their bodies by the current or the turning of their heads toward the anode. The second reaction occurs when the fish swim toward the anode. The third reaction causes the fish to turn over on their sides, toward the anode, and they are no longer able to move of their own accord.

In spite of the externally similar symptoms, when treating the fish with continuous or interrupted direct current as well as with alternating current, the physiological symptoms are basically different. If the fish is treated with continuous direct current a stimulant develops in the spinal cord, which stupefies the fish and can be considered as a genuine primary paralysis.

The stupefying effect with alternating and interrupted current can not be called genuine. These types of current cause a heavy stimulation of the central nervous system, which leads to contractions of the muscles. Each pulse of the current causes a vibration in the muscles of the fish. If the next pulse occurs before the movement of the muscles caused by the preceding pulse ends, the muscles are continuously stimulated and a cramp sets in.

This is slower in developing in larger fish because larger masses of muscle must be moved. The big fish do not, therefore, require such a quick sequence of pulses as small fish to produce cramps. A small fish also can be paralyzed at low pulse rates, but the length of pulses must be substantially greater or the voltage must be greater. That deviates, however, from the desired minimum of electrical energy, at which the necessary effect would just be reached. Large fish receive a greater voltage in the water than the smaller fish, and so they may be influenced more quickly and by relatively smaller voltages.

Fish within a specific area remain stunned when they are affected by pulse rates above that required to stup-

\* Based on material by Professor P. F. Meyer-Waarden, Director of the Institute of Coastal and Inland Fisheries, Hamburg, Germany, published by Fisheries Division, Food and Agricultural Organization (FAO).

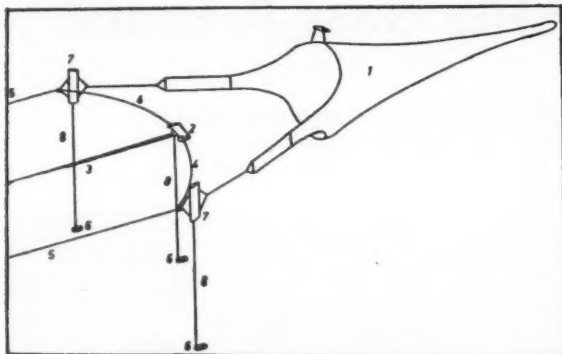


Diagram of an electrical Trawl net. An electrode and a stabilizing device are placed before the opening of the midwater trawl. A cable connects the electrode to the electrical gear on the vessel. A line assures adjustment of the electrode. Three iron weights ensure the unchanged distance of the fishing gear from the bottom of the sea. (1) midwater trawl, (2) electrode, (3) conducting cable, (4) line, (5) warp lines, (6) iron weight, (7) trawl boards, (8) lines fastened to weights. Electrode stuns fish, which are caught in the net before they can escape.

ify them. If the pulse rates are kept below the limit which paralyzes them, the fish swim towards the anode and when they are close to it they become paralyzed.

With a low pulse rate, the required electrical energy is reduced by half as compared with the purely stupefying method, a fact of great importance to electrical fishing. Also, because different species of fish react differently to varying pulse rates and the minimum value of the pulse rates needed to paralyze these fish are known, it is possible to select the fish caught within a certain range according to size and kind.

The pulsating current has the greatest effect. The alternating current is second followed by the direct current. In spite of having the greatest paralyzing effect, the pulsating current has the smallest after-effect on the total organism. It is, therefore, particularly suited to electrical fishing.

Alternating and direct currents are used for electrical fishing only in fresh water. Pulsating current is the key to commercial electrical fishing in sea water, and there are great possibilities in using it.

### The Attracting Effect

Fishing gear based on the attracting anodic effect of the electric current has been known in fresh water fishing for many years. In most cases the gear is home made by fishermen and experimenters, or they have it made by electro-engineers to their own design. In some cases, such gear is commercially manufactured.

The first such gear operated with alternating current. Now, in nearly all cases, direct current is used which is

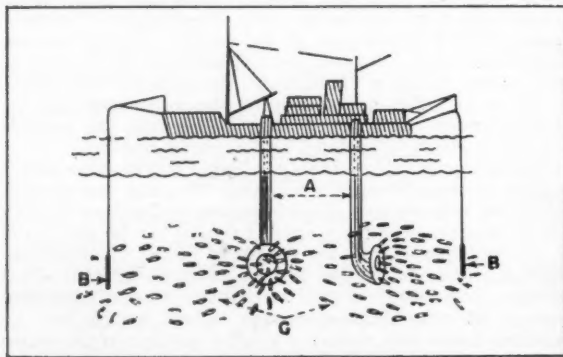


Diagram of Russian electrical fishing method. Fish are stunned by electrical field (C) created by electrodes (B) and are sucked up into the fish pumps (A).

taken from gasoline or Diesel generators, or more recently from batteries.

The development of useful electrical fishing gear for fishing in small brooks and shallow fresh waters encountered many difficulties, but even more were met in the case of sea fishing. First the greater conductivity of sea water as compared with fresh water had to be overcome by inboard equipment, and second, the electrical fields and ranges had to be considerably larger.

Electrical gear for deep sea fisheries is only of interest when it promises substantially increased catches. Such gear must not require much space aboard nor complicate the usual fishing methods. Kreutzer achieved the electro-technical solution of the problem by developing an impulse generator.

Such generators can be used in fresh water as well as sea fisheries, but are not recommended for fresh water fishing because their price and operating costs are very high. But for sea fisheries they should be more useful. A generator could be used, for instance, in a trawl fishery. Fish shoals can be concentrated before the net opening by means of the anodic effect, and paralysis prevents the fish from escaping the approaching net. In this way it should be possible to achieve considerable increases in catches.

The Russians are said to have succeeded in paralyzing fish, although they have not coupled the generator to a trawl net, but to a fish pump which sucks up the electrically stunned fish. There is no exact data on practical experience in sea fisheries, only on the use of an electrical fish pump in fresh water.

In experimenting with electrical current and attaining an attracting effect, it has been observed that fish under the influence of continuous or interrupted direct current in the marginal zones of the electrical field do not swim towards the anode. They get excited but in most cases they escape.

### The Blocking or Driving Effect

The blocking effect has been known for a relatively long time. In 1912, Larsen obtained a German patent on "equipment for keeping or guiding fish and other aquatic creatures into firths, bays, rivers, etc." The gear, suspended over the water, floating on the water, or deposited on the bottom, was either directly or indirectly connected to a source of electrical energy by cables in the water, employing either direct current or alternating current or electrical shocks from the same or opposite direction. The alternating method provides a better frightening effect, at the same time saving energy. According to Kreutzer, screens operating with pulsating current are said to have proved successful in practice. The blocking or driving effect is now being used in fresh water as barriers for the control of migration, to prevent fish from being driven into turbines and pumps of hydroelectric plants, dams, etc., for guiding fish to fish ways and into new river systems, and for fencing off water areas which are to be managed.

In sea fisheries too, blocking can be useful. Inlets for instance, can be fenced by an electrical barrier for keeping sea fish inside. According to present technical development it might also be possible to drive shoals of fish at sea in a certain direction. But, such gear does not exist as yet.

### The Stunning or Killing Effect

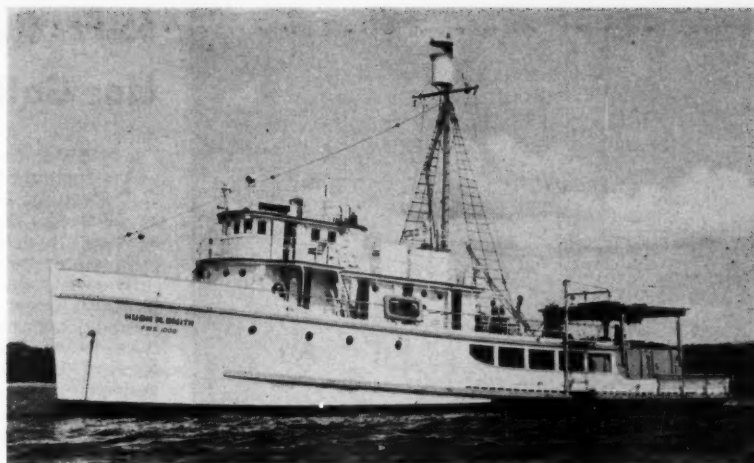
Besides the attracting and blocking or driving effect of the electrical current, its use for stunning or even killing fish has aroused the interest of the fishing industry. A demand exists in fresh water fisheries. The gear can be used for instance in pond farming for collecting winter carp and trout for the retail trade. Today this is done with difficulty, using dip nets or draining the ponds.

In sea fisheries, French fishermen are interested in an electrode to kill or paralyze sardines caught with seine nets so that the fish do not lose their scales in the dip net or on board.

(Continued on page 31)



Research vessel, "Hugh M. Smith", used by U. S. Fish & Wildlife Service to conduct experimental and exploratory work.



## Researching Tuna Habits in the Pacific

**Federal, International and Industry Projects seek to learn make up of tuna resources, intermingling of species, extent and locations of potential catches.**

**T**HE latest development in the extensive tuna research being carried on in the Pacific is the finding of tuna larvae—fish in the very early stages of development—off the Washington coast.

The species of tuna is not yet known. The discovery was reported by Dr. Richard H. Fleming, Executive Officer of the Department of Oceanography at the University of Washington at Seattle.

Larvae tuna were found among the more than 5,000 fish taken on a recent return cruise from the Aleutians and the Bering sea by the *Brown Bear*, research vessel of the oceanography department.

Ten specimens of the tuna larvae—10 to 15 millimeters in length—were taken in water with a temperature of 55-60 degrees F. The location of the find was 60 to 400 miles west of Cape Flattery.

This find is a definite break in the scientific fish studies and may aid considerably in solving some additional tuna secrets—unknown facts that have many times left commercial fishermen and cannery operators in an expensive quandary. For some years the valuable albacore tuna

appeared off the Oregon and Washington coast in very great numbers and some years not at all. Why is not known and the prized albacore has remained the mystery fish of the Pacific ocean.

Areas of spawning of the albacore tuna are not known, nor have larvae or immature fish been found. Neither is it known where the tuna go after their, sometimes July to October appearance off the Oregon Coast. Recent scientific studies, however, lend support to water temperatures, food supplies, and other oceanography conditions as important factors in their appearances or absences.

### Research Exposing Tuna Secrets

The albacore, bringing the highest price per ton of any tuna species and the only one which may be labelled "white meat tuna", supports major summer fisheries in Japan and on the west coast of the United States. At present the greater portion of the ocean between the two countries is largely unexplored and the ways of the albacore in that area are as little known as the fish's spawning and early life.

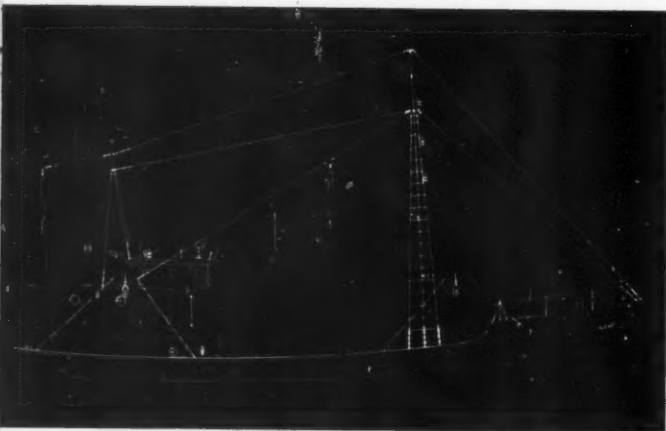
Somewhat more is known about the other commercially valuable tunas, though information on those species is also limited. Extensive studies are being made to learn the secrets of the tuna. Organizations such as the Department of Oceanography, at the University of Washington, the Pacific Oceanic Fisheries Investigations and the Northeastern Pacific Albacore Survey, together with the cooperation of the fisheries, are carrying on experiments in their laboratories and aboard boats. Through these studies, the biologist is looking for a means by which the fishing industry can be told when and where tuna may be taken most economically. He is learning how a sustained maximum harvest may be accomplished.

Another of the many organizations in search of a solution to the tuna fisheries' problems in the Inter-American Tropical Tuna Commission. Under a convention with Costa Rica and Panama, the United States is studying the tunas and the tuna-bait fishes in the Eastern Pacific. The Commission like the other organizations, conducts investigations in an effort to expose the facts about the life history, biology, and ecology of the fish, and to determine the effects fishing and natural factors have upon them. The work being conducted by the Commission, as



Unloading tuna catch from "Betty" at Astoria, Oregon.

(Continued on page 34)



Outboard profile of 65' Quebec dragger designed by Eldridge-McInnis Inc. Below, the inboard profile and arrangement plans.

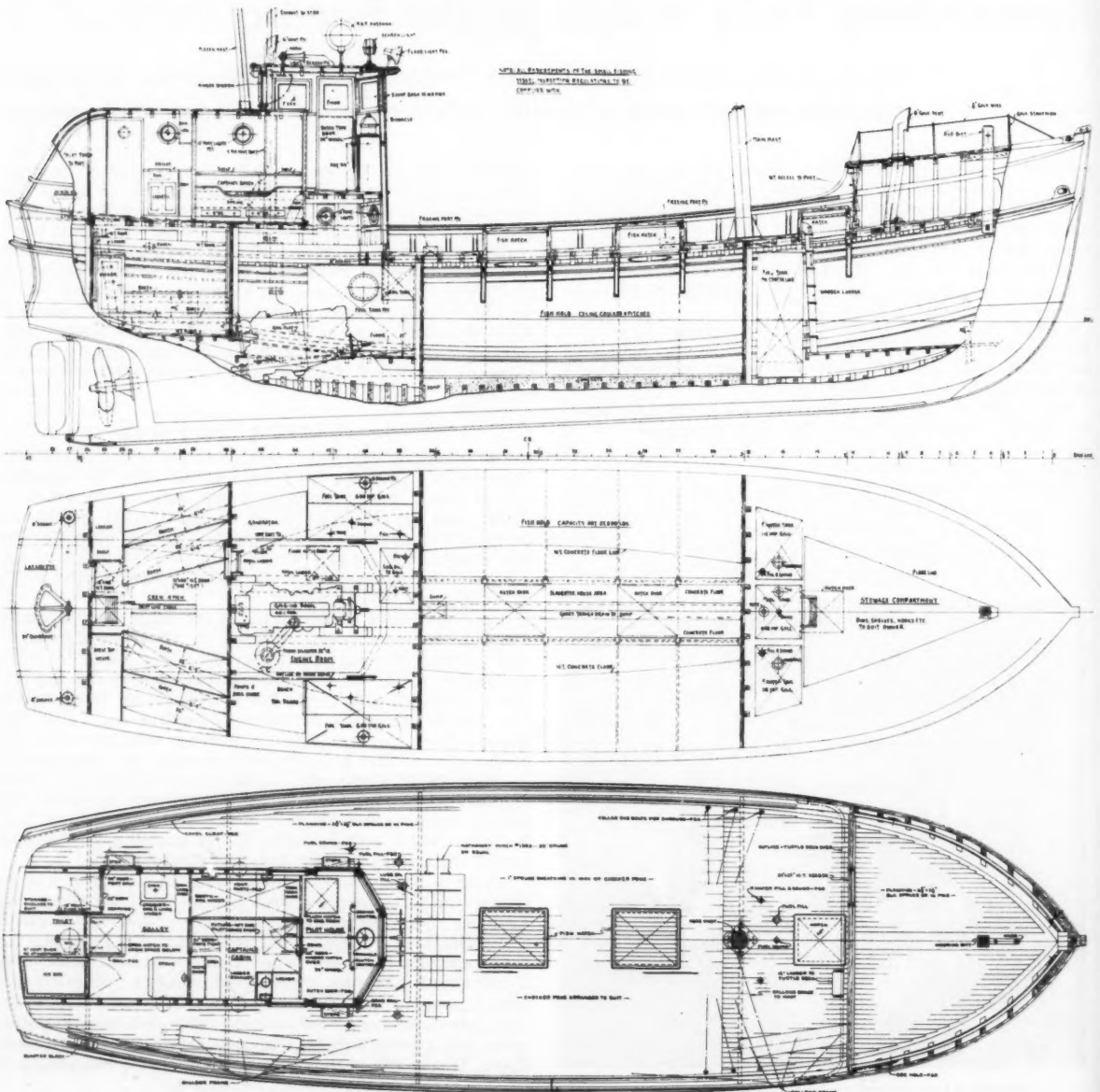
## 65-Ft. Quebec Dragger Design Has Galley on Deck

**A** NEW 65-foot dragger plan is being utilized for the construction of a series of fishing vessels in the Canadian Maritime Provinces. The new designs were developed by Eldridge-McInnis, Inc., of Boston, Mass., and represents a "big brother" version of Canada's successful "Gloucester-type" vessel.

Known as the Quebec Standard Dragger, the new craft is wider, longer and deeper than her predecessor. She has a full bodied power boat hull, transom stern and a slightly raked bow. The dragger is ketch rigged, with mainmast forward. The mizzenmast over the house may be left off if desired.

The new dragger is 64'10" in overall length and 61'6" on the waterline. The beam outside of planking is 17'7" and draft is 7'6". Mean displacement, ready for sea with

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# Hatteras Shrimp Trawlers

## Delivered to Mexico

**M**OREHEAD City Shipbuilding Corp., Morehead City, N. C., recently moved into the international market with the delivery of two fleets of 53-foot Hatteras Trawlers to Mexican owners. One fleet of three shrimpers will operate on the East Coast of Mexico, while the other fleet of six will fish from Mexico's Pacific waterfront. Thus Hatteras Trawlers, which previously were in service from New England to the Gulf of Mexico, now have spanned the continent and reached the Pacific Ocean.

The six-vessel fleet of new boats, all double rigged with the Texas twin-boom shrimp gear, are owned by Mariscos del Sur, S. A., Mexico City, whose principals are Manuel Zepeda Garcia and Paulino Ortiz Mier. Mexican crews took the boats from Morehead City to the port of Salina Cruz in the State of Oaxaca in Southwest Mexico.

The new boats, of the fast, highly maneuverable, 53 foot series introduced last fall, are named *La Corconera R. C. S.*, *Returcio F. C.*, *Carinal F. C.*, *Chema C.*, *Miguel Z.*, and *Maria Z.* The same kind of engines and equipment are installed on all six. The main engine is a D339 Caterpillar Diesel, rated 100 hp. at 1225 rpm. The reduction gear is a 3:1 Twin Disc. The 44 x 36, 4-blade Federal propeller is mounted on a 2½" one piece shaft.

The main and auxiliary generators are Onans. There are four 8-volt Hixoe batteries. A Bendix DR-16 depth recorder is installed in the pilot house. The main bilge pump is Jabsco and the auxiliary pump is a Marlow. On deck is a Stroudsburg hoist carrying 1800 feet of 7/16" trawl cable. The hoist is especially designed for double rig operation and has two winch heads. Other equipment includes a 65-pound Danforth anchor, a Mile-Ray searchlight, and Wall Manila rope.

Zygmunt Warren of Mexico City is owner of the new three-vessel fleet of Hatteras Trawlers. Named the *Laguna I*, *Laguna II*, and *Laguna IV* and they have identical equipment. The main engine is an HRM-600 Cummins Diesel, rated 165 hp. at 1800 rpm., turning a 40 x 26, 3-blade Wirkkala propeller through a 3:1 Twin Disc reduction gear. The wheel is mounted on a 2½" Tobin Bronze one-piece shaft. There are four 8-volt Hixoe batteries.

Each Warren boat has Raytheon radiotelephone, Raytheon 701 Fathometer depth sounder, and Raytheon direction finder. On deck there is a Stroudsburg 515 ½ hoist. Other equipment includes a Jabsco main bilge pump, Marine Products auxiliary pump, Half-Mile-Ray searchlight and Wall manila rope.

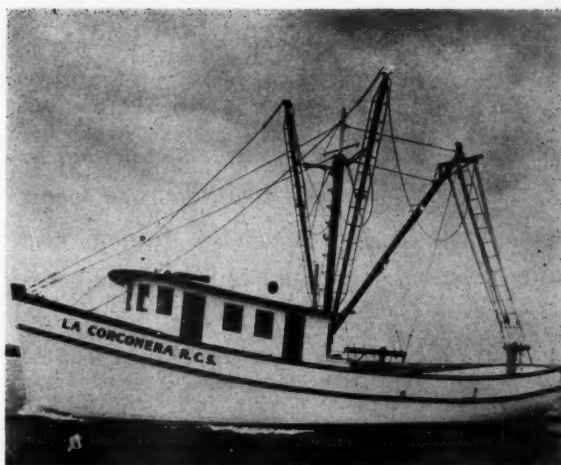
## Quebec Dragger Plans

(Continued from preceding page)

no fish aboard, is 67 long tons. Fish capacity ranges between 80,000 and 85,000 pounds, which is considered good for a boat of her length.

Three vessels from the new design are under construction in the town of Gaspé, Quebec; and two are being built in Nova Scotia, one of which will be operated out of Prince Edward Island. The Quebec boats will be powered with a 6-110 General Motors Diesel with 4.5:1 reduction gear. The P.E.I. boat will be fitted with an 8-cylinder, 150 hp. Gardner Diesel with 3:1 gear. Speed is expected to be 10 knots.

Plans and specifications have been approved by the Canadian Board of Transport in Ottawa. They will be built under the Provincial Loan Board Plan, whereby the owner can borrow a certain amount of the cost. In addition, Canada has a Government construction subsidy of \$165 per ton, which in this boat would amount to as much as \$10,000.



"LA CORCONERA R. C. S.", one of nine Hatteras Trawlers built by Morehead City (N.C.) Shipbuilding Corp. for Mexican owners, was purchased by Mariscos del Sur, S. A. and is equipped with Texas double shrimp rig, Stroudsburg hoist and D339 Caterpillar diesel.



"LAGUNA I", new 53' shrimp trawler built for Mexico owner Zygmunt Warren, is equipped with a 165 hp. Cummins Diesel and Stroudsburg hoist. She is one of three sister vessels built by Morehead City (N.C.) Shipbuilding Corp.

The new draggers, which will be used for groundfishing, will be operated with the same size crew as the 60-footers, namely four men and the captain. Most of their fishing will be done in the Gulf of St. Lawrence, with a minimum season of 25 weeks, depending upon the weather.

Three arrangement plans are available for the Quebec dragger. The one accompanying this article provides a stowage compartment in the forward section, crew accommodations below aft, and captain's cabin and galley in the deck house. The second arrangement is more or less conventional, with galley and crew's quarters forward, engineer below aft, and captain's stateroom, toilet and locker on deck. The third plan shows crew's quarters forward, galley aft and the same arrangement in the deck house.

For the most part, the new draggers will be built of woods native to the Maritime Provinces, with the exception of frames and certain other structural members, which will be of oak. Some birch and native black spruce will be used.

Framing specifications call for two layers of laminated, steam bent stock, totalling 3" molded and 3¾" sided. The keel is 8" or 9" sided, planking is of 1¾" thickness and there will be 1½" ceiling and 2¾" decking.



# Florida Shrimp Producers Favor Double Rig Gear

Definite trend to new method is indicated by interviews with numerous operators, who report more efficient, more productive fishing, with easier handling of nets and less strain on boats

**A** SURVEY of shrimp boat owners and captains in Key West, Tampa, and Miami, Florida indicates a definite trend towards the use of the double or Texas rig. Good results have been reported from the Texas area with the use of the new gear which fishes two nets at the same time and is distinguished by its extended outriggers.

The question of superiority is far from settled, however. There are two schools of thought, one of which is convinced that the double rig is the answer to the shrimp-er's cry for improved technique and improved gear, while the other staunchly upholds a tried-and-true single rig philosophy. Both groups are articulate, frequently abandoning the traditional closed-mouthedness of fishermen. A third element, perhaps the largest of all, is cautiously straddling the fence with a "wait-and-see", "let-the-other-fellow-iron-out-the-bugs" attitude.

Double rig has one overwhelming advantage over single rig, according to the champions of the new method—increased production. In line with this theory, Lawrence W. Strasburger, fisheries technical consultant from Metairie, La., made this statement at the Gulf and Caribbean Fisheries Institute at Miami last November. "Reports so far have indicated that fishing with dual nets, one from each side of the boat, has resulted in higher catches of shrimp than fishing from the stern of the boat with a single net, even when it is larger than the combined size of the dual nets."

Jumping on the production bandwagon, many Key West shrimpers have already converted this Winter until, as indicated in the late January observation of George Ren- na, manager of Safe Harbor Enterprises there, "The single rig fisherman here is a thing of the past and we can give you no comments in favor of the old style rig".

In addition to greater productivity, other advantages attributed by Florida shrimpers to the double rig method include; smaller nets are easier to work, less strain on the boat; if the boat hits a hang, only one of the two nets



"ALONA GIRL", 67', double rigged trawler owned by L. E. Thompson of Fort Myers, Fla., is powered with a 150 hp. D342 Caterpillar Diesel. Equipped with a Stroudsburg Model 515½ hoist with two winch heads. She was built by Diesel Engine Sales, Inc. of St. Augustine, Fla.

is likely to be torn instead of destroying a large single net; nets can be compared and adjusted while in operation; there is less strain on the winch, and fishing in rougher waters is possible because picking up is balanced. The leverage effect from the booms is eliminated.

Further, because of the simplicity of operation, the crew can retrieve the nets from the bottom more easily, and a larger area can be dragged over an extended period. The system is faster, less fuel is used, and nets will last longer since not as much webbing touches the bottom from a small net as with a larger one.

Most double rig proponents estimate an increased catch of about one-third, although this amount varies. H. F. Sahlman of Sahlman Sea Foods in Tampa says that his company's aim in its use of double rigged boats, which comprise most of the fleet, is to raise over-all production ten percent.

Charles Ludwig, Miami producer, says that one of his double riggers brought in 53 boxes on a six-day initial run, as contrasted with its former average of 30 boxes for the same period. Ludwig is owner of the "Louise L", which was the first Florida boat to fish Campeche with a double rig. He is an ardent spokesman for the new method.

At Key West, Mitchell Tate, captain of the double rig "The Boss" registered under the name Ed Knight, brought in 3,580 pounds after eight nights in the Tortugas fishing grounds. Tate, who fished double rig in Texas last year, reports he averaged one-third or more there than under the old single rig system.

As a seasoned double rig fisherman, Tate predicts the new gear "should do as well in Tortugas as in Texas". He recognizes that a "few more adjustments" and "a little more practice" are necessary for the Tortugas beds, but believes that in years to come, all shrimp boats will be double rigged. "The main point is in the nets," he declares. "Flat nets aren't good enough for Tortugas. They don't go high enough to reach the fish, even on light nights."

Walter Tate of Key West, brother of Mitchell Tate, and captain of the *Lois Joyce*, which the two men own together, is another double rig enthusiast. Typical catches for Walter are 7,300 pounds during 11 nights in the Gulf of Mexico off Texas and 3,200 pounds during eight nights in Tortugas. Previous single rig runs in Tortugas aver-

(Continued on page 30)



"TOMMY H.", 63' twin rigged boat owned by Samuel D. Hughston, Jr., Brownsville, Tex. is powered with a 165 hp. General Motors 6-71 Diesel turning a 44 x 36 5-blade Federal propeller, and has a Stroudsburg Model 515 ½ hoist with two winch heads. The 4" pipe outriggers are 24' long. She was built by Morehead City Shipbuilding Corp.

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## NORTH ATLANTIC

### Official Grades Announced For Maine Sardines

Maine's Commissioner of Agriculture, E. L. Newdick announced official state grades for oil packed sardines and hailed the action as a most vital step forward toward quality control, market development and the future success of the industry. He said that the action was taken at the request of the industry, after three years of extensive research and actual experience on a voluntary basis with his organization participating in the development phases.

Under the program, all lots of quarter oil sardines packed in the future will be graded, under Newdick's supervision, and given a rating according to the degree of quality produced. Each lot will be rated fancy, extra-standard, standard or sub-standard, according to the manner in which it survives the rigid grading examination. The effective date is April 15, which is the legal opening date of the 1958 packing season.

Chairman George C. Seybolt, of an industry committee which has been active in development of the program described it as the most commendable and progressive move ever made by any segment of the American seafood industry, on its own initiative, and he believes that it is the first example of mandatory grading of food produced in the United States.

The grading operation will be performed by employees of the Dept. of Agriculture, under the supervision of Assistant Chief of Inspection Andrew Watson, at the Industry's Bangor laboratory. Grades will be based on a number of factors, including appearance, texture, flavor, odor oil or sauce quality, moisture and water content.

### Would Give Maine Fishermen Marketing Protection

Senator Frederick G. Payne of Waldoboro has introduced a bill co-sponsored by Senator Margaret Chase Smith which would remove fishermen from prosecution under the anti-trust laws. Farmers have federal protection in this field and may withhold produce from market, and enjoy the protection of existing laws, and it is this legislation under which the two Maine senators seek to place the fishermen.

The bill would amend the Fisheries Cooperative Marketing Act of 1934 to provide that neither individual fishermen nor non-profit fishermen's associations shall be subject to the anti-trust laws with regard to fishing activities.

At present the Maine Lobstermen's Association of 2300 members and its president Leslie Dyer of Vinalhaven are under indictment, and under the anti-trust laws, the government has assumed that lobstermen haven't the right to sell their catches for what they consider a fair price and have no right to withhold lobsters from the market if the price is not to their liking.

The case of the Maine lobstermen is to come up this May, and the question of whether or not there actually was a conspiracy in restraint of trade will be decided by the courts in due course. However, it may be several years before the case is finally adjudicated, and unless prompt legislative action is taken to clarify the present law, fishermen will not know for several years whether it is permissible for them to attempt to take concerted action to obtain a fair price for their catch.

### Two Trawlers Added to Rockland Fleet

Two large trawlers have been obtained by 40 Fathom Fisheries of Rockland from Hampton, Va. and they are scheduled to fish out of Rockland this summer. They are



Capt. Roy Curtis, captain and part owner of the 50' gill netter, "Maurice G. Davis", which hails from Portland, Maine.

the North Sea, Capt. Adolph Elmquist, with a fish hold capacity of between 185,000 and 200,000 pounds and the Mockingbird, Capt. Wilbur Gibbs, of from 150,000 to 160,000 pound capacity.

The 40 Fathom firm is expanding facilities in the plant for processing whiting and will be accepting catches from Maine boats this summer. This is the first winter the fillet plant has operated and production has been reported as holding up well. During January catches amounted to 1,500,000 pounds; February produced 1,650,000 pounds and March was expected to produce more than 2,000,000 pounds.

### Maine Sardines Show Big Increase in Sales

A major increase in Maine sardine sales at the consumer level during the first three months of this year and a sizable gain for the eight-month period, June through January, was recently reported by Richard E. Reed, executive secretary of the Maine Sardine Council.

Movement of stocks from packers' hands during January and February was the largest for a like period since the Council started keeping records six years ago and totaled nearly 500,000 cases.

The increase in sales was attributed to several reasons greater demand for low cost, high protein foods during a period of recession, high price of meats, improved quality, more meals being eaten at home and the Council's promotional programs.

### New Party Boat for Montauk

Capt. George F. Glas of Montauk Point, N. Y., is having a new steel party fishing boat built by Gladding-Hearn Shipbuilding Corp., Somerset, Mass. The twin-screw boat will have dimensions of 50' x 14'6" x 7'6", and will be powered by two 6-71 General Motors Diesels with 2" Monel shafts and 26 x 17 Federal propellers.

The new vessel, to be launched late this month, is designed in accordance with the new Coast Guard regulations covering craft carrying 6 or more passengers. Capt. Glas now has the "Helen", and his new boat will be the "Helen II".

### Greenport, N. Y. Shipyard Burns

The marine railways building and paint shop at the H. W. Sweet Shipyard in Greenport were destroyed in an early morning fire on March 28. Damage was estimated at about \$20,000. The fire occurred during one of the heaviest snow storms of the winter and the wind at times was 40 miles an hour.

In the large storage building were paints and other equipment belonging to the yard as well as a great deal of equipment used by the oyster and fishing boats that dock at the yard.

## Massachusetts Scallopers Reach Truce on Regulations

A truce was reached at a Conservation Committee hearing in Boston last month in a controversy between bay scallop and sea scallop fishermen over new sanitary regulations.

The sea scallop fishermen seek regulations that will make it possible for them to continue to sell scallops in the New York and Florida markets. The same regulations, contend the bay scallop fishermen, would put half their numbers out of business, since they couldn't afford the expensive equipment required.

Frederick C. Wilbour, Jr., director of the division of marine fisheries, suggested that certification of the sea scallop fishermen could be continued while a study of the entire problem was made. This would allow New York and Florida markets to remain open to Massachusetts scallops.

John Linehan of the New Bedford Seafood Producers Assoc. said that organization favored the regulations, even though changes would cost from \$500 to \$1000 per vessel. He deemed the rules necessary to protect a business that brought in \$7 million in revenue last year.

Thomas D. Rice, executive secretary of the Massachusetts Fisheries Assoc., said the regulations would protect standards and eliminate a sales hazard in New York and Florida.

Opposition came from areas where bay scallops are found, such as Oak Bluffs, Gay Head, Edgartown, Tisbury, New Bedford, Falmouth and Orleans.

Bay scallops are caught only during October and are sold the same day they are harvested. Sea scallops at times do not reach the consumer for as many as six days after being harvested.

## Seek Study on Massachusetts Trash Fish

The Fish & Wildlife Service is considering proposals for Federally-financed research into possible new industrial uses of certain Southeastern Massachusetts fish species which have no commercial value as food.

An application for research funds under the Saltonstall-Kennedy Act has been submitted by Prof. Milton E. Parker, formerly of New Bedford, director and professor of food engineering of the Illinois Institute of Technology, and John H. Litchfield, assistant professor of the same department.

More than 100 applications for research funds have been received by the Bureau of Commercial Fisheries, and out of these, possibly 10 to 20 projects will be selected by a committee of bureau experts for Saltonstall-Kennedy funds.



Chester A. Holzman drags for lobsters and fish out of Shinnecock Inlet, N. Y. with "Dianna". She has a 165 hp. General Motors diesel with 2:1 Twin Disc reduction gear to turn a 31 x 19" Columbian Bronze propeller. Equipped with Exide batteries, Plymouth rope, White depth sounder and Hathaway winch she is finished with International paint.

## Test De-Icing, Weighing Unit in Boston

A commercial-scale test of a mobile fish-weighing unit constructed by the Bureau of Commercial Fisheries' Technological Laboratory at East Boston was scheduled for March 31 at the Boston Fish Pier.

This new unit is used in unloading a fishing vessel and will eliminate forking of the fish during weighing and also will permit removal of ice and accurate weighing of the fish.

## New Bedford Fishermen Voting On "Home Rule" Union

New Bedford fishermen are voting on the question of whether to disassociate with the Atlantic Fisherman's Union and apply to the Seafarers International Union for a separate "home rule" charter. Balloting was to be allowed for 30 days to enable fishermen at sea to vote on the question.

The New Bedford membership has long favored a "home rule" local, which would make it autonomous in New Bedford matters. Members have claimed that under the four port AFU not enough attention is paid to New Bedford problems. The AFU includes the ports of New Bedford, Gloucester, Boston and New York.

## Lands Record Catch at New Bedford

The Gloucester dragger *Estrella* landed one of the biggest catches ever recorded in New Bedford on March 17, when she arrived with 134,500 pounds of fish, including 25,000 lbs. haddock; 8,000 lbs. cod; 4,500 lbs. dabs and 97,000 lbs. gray sole.

The last catches in New Bedford reaching 100,000 pounds or more were landed by the *Pauline H.* and the *Stanley B. Butler* about five years ago. The *Pauline H.* landed 72,000 pounds on March 13. It was the largest individual boat landing of the year until the record was broken by the Gloucester dragger.

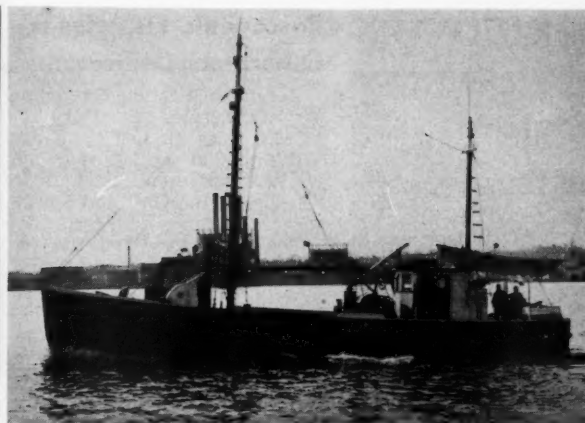
## Star-Kist May Open Frozen Food Plant In New Bedford Maritime Terminal

Star-Kist Foods, Inc. is interested in New Bedford's new waterfront Maritime Terminal as its first choice for the construction of an East Coast plant to handle the frozen-food field for its company. Star-Kist, contrary to former reports of a canned tuna packing plant in New Bedford, is interested in a plant for the frozen-food field which would include frozen tuna pies, frozen tuna and noodle casseroles, frozen lobster newburg and frozen rock lobster tails.

## Gloucester Would Modernize Fish Pier

A proposal to modernize the 20-year-old Gloucester State Fish Pier was announced last month by the Gloucester Vessel Owners Assoc. Proposed in the modernization is the removal of all existing structures on the pier except the two dehydrating plants and the freezer building; the construction of modern office and "stalls" to replace those presently considered too small for efficient utilization; the establishment of a pier-located selling room possibly supervised by state or city officials; the installation of cooler facilities in which fresh fish could be stored while awaiting processing or shipment; the addition of conveyor loading apparatus; construction of two finger piers behind the present by-product storage rooms; the installation of a pipe-enclosed, endless conveyor belt underground, upon which waste materials from the pier's filleting firms could be transported to the nearby dehydrating plants; and the construction of a suitable system of filters and pumps to pass all unusable fish waste from the pier into the city sewer line.





Capt. Leif Talgo, skipper and managing owner of the 65' Fairhaven, Mass. dragger "Captain Deebold", shown in center. Right, the vessel's new Model WAKDBM Waukesha Diesel, rated 195 hp. continuous at 1600 rpm. The engine is fitted with Snow-Nabstedt 4:1 re-

duction gear, Ross heat exchanger, Maxim silencer, Marine Products pump and Twin Disc 3:1 power take-off to operate the Hathaway winch. The equipment was sold and installed by Hathaway Machinery Co.

## Rhode Island May Reduce Shellfish License Fee

Bills which would reduce the present commercial shellfish license from \$25 a year to the former \$1 level were introduced in the General Assembly recently at the request of a group of Bristol fishermen. Sponsors of the bill were Rep. George C. Lima of Bristol, Senators Gladys M. Brightman of Bristol and Frank A. McMurrigh of Tiverton.

The state for some time appropriated general tax money to pay for dredging of quahaugs from polluted areas of the upper bay and Providence River to clean areas in the lower bay where fishermen ultimately could take them for sale. The two-year-old license law that boosted the license fee from \$1 to \$25 contained a clause that segregated this money for paying costs of the transplant operation.

## Delaware Vessels Ready For Menhaden

Early last month preparations were in full swing for the opening of one of the Delmarva Peninsula's vital but probably least known industries—the menhaden business. Men were busy at the Roberts Industries, Inc. shipyard in Salisbury, Md. and at the Fish Products Co. at Lewes, Del., getting the menhaden fishing fleet ready for the coming season.

John Parks, shore captain of the Fish Products Co. reported that about 30 of the firm's boats lay over the winter months in the Wicomico River at the firm's dock below Shad Point.

Of these 30 vessels, 23 are steel and seven are wooden. They are Diesel powered and range in size from 120 ft. to about 160 ft. in length.

## Murdock N. MacInnis

Murdock N. MacInnis, 69, retired New England manager of The Linen Thread Co., died suddenly on March 30 in Gloucester. Mr. MacInnis joined The Linen Thread Co. after graduating from Amherst College, and was with the firm for 40 years, until his retirement in 1957.

During his early association with the company, gill netters came to Gloucester from the Great Lakes, and he played a prominent part in getting this branch of the fisheries established here.

MacInnis traveled extensively for the company in Newfoundland and the Maritime Provinces. In 1950, with J. W. Oliver, another company executive, he spent three months in Japan and the Philippines in exploring business possibilities.

## Connecticut Lab Finds Salt Solution Effective Against Oyster Enemies

Marine biologists at the U. S. Bureau of Commercial Fisheries' Milford laboratory have found that a saturated salt solution can be 100 percent effective in killing oyster enemies. Most methods, including some 2,000 different chemicals tested, endanger the oyster, but the salt destroys the oyster enemies without harming the oyster.

The method consists of immersing sponge-infested oysters or "cultch"—the material of the oyster bed in which starfish and other sea animals are found—in a saturated salt solution. Then the treated material is kept in the air for varying amounts of time before returning it to the sea. From 30 seconds to five minutes immersion time gives 100 percent mortality, depending on the animal. A minimum of one hour exposure to air was necessary in most cases.

Healthy oysters with their shell intact apparently can come through 30 minutes in a saturated salt solution at room temperature with no ill effects.

## New Hampshire Would Develop Portsmouth Fishing Center

The New Hampshire State Port Authority which was recently created is investigating the possibility of making Portsmouth a big ship terminal and fishing center.

The Port Authority consists of Chairman John Rowe, Alvin Redden, Ernest Sherman, Hugh Hamilton, Robert Keller, Eugene P. Soles and John Seybolt, with six sub-committees assigned to the job of exploring the possibilities of attracting new and more business to the seacoast area.

The group believes that Portsmouth could become a fishing center rivalling Gloucester mainly because fish caught off the Isles of Shoals could be on their way to market hours before fishing boats could get into Gloucester. Actually Portsmouth is four hours closer to market than Gloucester.

## Andrew A. Radel Dies in Bridgeport

Andrew A. Radel II, 65, president-treasurer of the Andrew Radel Oyster Co. of South Norwalk, died last month in Bridgeport. He served for many years as president of the Conn-Oyster Growers and Dealers Association and was a director of the Oyster Growers and Dealers Assoc. of North America.

## GULF OF MEXICO

### Louisiana Plans Program to Aid Shrimp Industry

The Louisiana shrimp canning industry last month presented a 14-point legislative program to the state Wildlife and Fisheries Commission in an effort to bolster the state's declining shrimp catch.

H. R. Robinson, president of the Robinson Canning Co. of Westwego and a spokesman for the group, told the commission that Louisiana's shrimping problem has been declining since 1953.

The proposals favored by the canning industry include more strict seasons for shrimping operations and severe penalties for violators. A license fee for commercial shrimpers was also proposed, and the canners recommended mandatory confiscation of illegal tackle.

### Louisiana Approves Water Diversion Plan

A suggestion by a Mississippi delegation for revival of the ailing seafood industry was tentatively approved by the Louisiana Wildlife and Fisheries Commission recently. Headed by William Simpson of Biloxi, Miss., the delegation advocated a giant, fresh water transfusion of Mississippi River water into Louisiana marshlands as a means of revival.

Under the plan, as outlined at a commission meeting in New Orleans, water would be diverted from the river into the now-closed Violet Canal and into Lake Borgne to bring fresh water into the marshlands. An estimated \$200,000 to \$250,000 would be required to install flood-gates at the entrance of the canal.

### Louisiana Shrimp Shortages Blamed on Oil Industries

A Shrimp Canners Association spokesman, H. Ray Robinson, recently told the Louisiana Wildlife and Fisheries Commission that oil, gas and related industries have caused depletion of the shrimp supply.

He reported that the most serious effect of oil exploration in the Gulf of Mexico has been the intrusion of salt water into marshland areas, resulting from digging networks of canals in connection with oil operations.

Similar complaints before the commission were voiced on behalf of the oyster industry by Louis Battistella, Empire, president of the Louisiana Oyster Dealers' and Growers' Assoc. and Baldo Pausina, Barataria Bay oyster grower.

It was stressed that no attempt was being made to push out the oil industry, but it was recommended that industries digging canals be required to provide protective levees to prevent salt water intrusion.

### Twin City Fishermen's Cooperative Re-elects Lewis As President

The annual meeting of the Twin City Fishermen's Cooperative Assoc., Inc., was completed last month after six days of conferences at Morgan City. Re-elected president and general manager was John W. Lewis who has headed the organization since it received its charter.

Ernest Webster was named first vice-president succeeding Earl Webster; Ashley Galloway was named second vice-president; and A. T. Galloway, secretary-treasurer.

Presently producing for the Co-op are 49 vessels—about half of them producing for the Morgan City plant and the rest for the branch plant in Port Isabel, Texas.

### Pascagoula Fisheries Laboratory Dedicated

Formal dedication ceremonies for the \$250,000 Fish & Wildlife Service laboratory at Pascagoula were held last month. Ross L. Leffler, assistant secretary for Fish & Wildlife, said the lab, with a staff of 38 scientists, office workers and crew members was conceived to serve the fisheries in the Gulf and South Atlantic areas to improve the product eventually reaching the consumer.

The laboratory and the two boats the *Oregon* and *Silver Star*, will work to improve types of fishing gear and processing methods and to develop new markets for "convenience foods", such as frozen, precooked and pan-ready seafood items.

### Brownsville Top Shrimp Port

According to figures recently released by the Fish and Wildlife, Brownsville was top shrimp port on the Texas coast during January, with landing of 793,000 pounds, an upswing over December's 747,000 pounds. Port Isabel was second with 480,000 pounds and the Aransas Pass-Corpus Christi area was third with 315,000 pounds.

### Seek Dredging of Pass Cavallo Channel

Letters and resolutions have been sent to Congress by the West Side Navigation District, Calhoun County Navigation District, the city of Port Lavaca and several seafood concerns. Quick action is being sought to dredge a 12-foot channel through the pass to alleviate some of the difficulties.

The rapid shoaling of Pass Cavallo Channel is preventing safe passage of shrimp trawlers from processing plants at Palacios, Port Lavaca, Seadrift and Port O'Connor into the Gulf of Mexico. The dredging of the channel through the pass was delayed by failure of already-approved appropriations being made.

Already several shrimp trawlers have been damaged trying to navigate the narrow shallow channel from the inland waterways to the Gulf. Others are required to take the long Intracoastal Canal to the Port Aransas Channel, some 50 to 75 miles to the south.

### Aransas Pass To Build New Ice Plant

Gulf King Ice Co., a new organization, will construct a completely new ice plant with modern appurtenances for ship icing on Conn Brown Harbor at Aransas Pass. This is a partnership composed of several leading seafood producers and processors in the middle coast area. An application for a building permit was presented to the city council signed by Sydney Herndon, E. H. Sandahl, J. E. Webber, R. B. Lytle and J. K. Lytle, and calls for a structure to cost \$150,000.



THE "CLELL & JERRY" IS THE 52' fishing boat belonging to Frank Kopszywa, Biloxi, Miss. She is powered with 70 hp. Caterpillar engine and Twin Disc 2:1 reduction gear.

## Artificial Reef's Location Chosen

The director of the Coastal Division of the Texas Game and Fish Commission has tentatively located the first artificial reef on the Texas coast along the 10-fathom contour east of Port Aransas and near the Whistling Buoy. The location must be approved by the Coast Guard before the first of 200 old automobile bodies, chained together, will be dumped into the Gulf.

According to biologists Terry Leary of the Rockport Marine Laboratory, marine life should start growing on the metal surfaces immediately. Small fish will be attracted by feed and protection of the mass of junk, and larger fish will be attracted by the feed which the small fish offer.

## Rockport Boat Works Has New Owners

The Rockport Boat Works, one of the oldest and largest on the Texas coast south of Galveston, changed owners recently when the Picton-Johnson interests of Rockport completed purchase arrangements with R. R. Rice. Harold Picton of the Picton Lumber Co. will act as president and general manager. Directors include T. J. Johnson of the Johnson Fish Co. and Traverse Johnson, who with Charles T. Picton, founded both the lumber and fish companies.

Under Mr. Rice's management for many years, the yard is now geared to building and repairing shrimp trawlers and work boats. The new owners expect to modernize the equipment, but will continue to furnish service to shrimpers and work boats, and extend its marine supply service.

## Mississippi Would Broaden Seafood Commission Powers

A bill recodifying all the seafood laws was passed by the Senate last month and will now go back to the House with several amendments. One amendment gives the state seafood commission power to lease up to 100 acres of water-bottoms in Mississippi sound to private operators to develop as oyster reefs.

Another amendment gives the seafood commission authority to hire a marine biologist out of available funds and also to secure federal funds for conservation work.

Still another amendment provides for a \$50 privilege tax to be levied on fishermen who catch fresh shrimp bait for resale to other fishermen. The seafood commission would also have authority to regulate the bait fishermen operating in areas which fall in fresh water zones along the coast. The bill primarily broadens the powers of the seafood commission insofar as the conservation of seafood resources is concerned.

## Biloxi May Get Big Fish Meal Plant

The Biloxi city council gave its temporary approval last month to a request to establish a \$100,000 fish meal plant. The request was made by W. Lee Guice, representing the Mavar Shrimp & Oyster Co. The plant would process "trash" fish into fish meal to be used as animal food. The fish would be brought to the plant frozen and the processing would include baking the fish. It is estimated the plant would bring from \$500,000 to \$1,000,000 annually into the city, and would help the seafood industry.

## Conservation Dept. Office in Mobile

The Alabama Department of Conservation's Sea Food Division opened an office in Mobile recently. The office will facilitate work by the division with fishermen in Baldwin and Mobile Counties, and will also aid the division in attracting industries into the area which use fish products.

B. B. Larrimore, Sea Food Division chief will maintain headquarters in the new office located in the State Docks and the division office at Bayou la Batre will continue to remain open.



A 165 hp. General Motors Diesel powers the 52' shrimper "Mildred G." through 3:1 Twin Disc reduction gear and a 37 x 27" Columbian propeller. Surrette batteries, Columbian rope, Danforth anchor, and Bendix depth sounder are included in the equipment on the boat owned by C. L. Grant, Rockport, Texas. She uses Gulf lubricating oil and is finished with Pettit paint.

## Alabama Firm Tries Processing Mullet

For the first time in the Gulf coast area, mullet are being processed to keep them fresh for several weeks and still retain their appealing looks and tastiness. Capt. Joe Ramos, a seafood processor of Bayou la Batre, has undertaken this mullet processing experiment in an effort to boost the lowly fish in popularity with housewives.

The new process, in addition to scaling, drawing and removing the black stomach lining, includes packaging the mullet in a cryovac bag, pulling all the air out of the plastic bag with a vacuum pump, heating the package to shrink the bag and seal it, then quick freezing it, all in a matter of a few hours from the time the fish were caught.

Capt. Ramos has recently received an order for three tons of processed mullet to be shipped to Hawaii and has been busy lately processing and storing these frozen mullet at the Alabama State Docks in Mobile, preparatory to shipment to Hawaii.

## May Rebuild Alabama Seafood Industry By Cooperation

Albert Johnson of Heron Bay, president of the Alabama Seafood Protective Assoc., said that closer cooperation between State Conservation Dept., sports fishermen, and commercial fishermen could build the Alabama seafood industry back up in a few years.

Officials of the Assoc. recently reported that the seafood industry in that state was slipping and proposed the plan of cooperation to rebuild it.

Johnson and Jimmy Collier of Dauphin Island, vice-president, said they will ask to participate in building any additional snapper banks off Alabama's coast. They also would like to help locate new banks in areas where they will not interfere with shrimping operations.

Other suggestions made by the association officials include replanting of shells from oyster shops, with the shops agreeing to replant the shells from the oysters they sell.



## PACIFIC COAST

### Washington Shrimp Industry Due for Wide Expansion

Based upon recent observations, the comparatively new Southwest Washington shrimp canning industry is destined for wide expansion in 1958. Present information available indicates that there will be at least three more shrimp-peeling machines in operation this year than there were in 1957. Fishing too will be expanded considerably with a number of vessels, some of them from the halibut fleet, operating in this fishery for the first time.

The John N. Cobb, Fish & Wildlife Service exploratory fishing vessel, returned a few weeks ago from a two weeks' cruise of trawling in the eastern part of the Strait of Juan de Fuca. Purpose of the trip was to test, for the first time in bottom trawling, the modified electrical depth-temperature telemeter; and to assist State of Washington biologists in tagging true cod.

True cod were found to be most plentiful in Port Townsend, although small catches were also made off Port Angeles and west of Protection Island.

The depth-temperature telemeter, a device which transmits continuous trawl depth and water temperature data to the pilot house through an electrified trawl cable, proved to be sufficiently accurate when operating. However, the electrical conductors broke several times under the strain of trawling, necessitating repairs aboard the vessel. It was apparent that a stronger type of termination for the sensing unit will have to be developed if this instrument is to become a dependable aid in bottom trawling.

### Washington Fisheries Director Seeks Protection from Imports

State Fisheries Director Milo Moore has joined union and management leaders of the otter trawl industry in a plea for protection against foreign imports of groundfish.

Moore joined John Wedin, manager of the Fishermen's Marketing Assoc. and Northwest Trawler's Assoc. and George Johnsen, secretary-treasurer of the Alaska Fishermen's Union in requesting aid for American Fishermen who bring in cod, sole and other groundfish.

A joint statement suggested that an amendment freezing groundfish imports at their present level be placed on the bill which would provide loans and grants for fishermen and packers in the otter-trawl industry.

Limiting imports would provide the incentive necessary for the domestic industry to increase efforts toward consumption expansion.

### Excellent Fish Receipts At Seattle

Fish receipts at Seattle during the latter part of March were the best since early December. During one week the fleet landed 1,721,700 pounds. Seventeen vessels of the otter-trawl fleet landed 546,000 pounds, the best catch in this fishery in more than three months. Shellfish receipts included 6,300 dozen crabs and 6,600 gallons of Pacific oysters. Frozen receipts totaled about 850,000 pounds.

Otter trawl fishery landings at Seattle showed a substantial gain in March over the same month of last year. The 1958 catch for the month was 1,678,000 pounds from 55 trips compared with 1,109,000 pounds from 37 trips in March 1957. Largest increases were shown by true cod, which went from 371,000 pounds to 847,000 pounds, and English sole which climbed from 40,000 pounds to 314,000 pounds.



Power is supplied to the fishing boat "Sitka" by a 300 hp. Cummins NRT6M engine with a twin Disc clutch. The boat is 68' long and is owned by Oliver Stiles, Eureka, Cal.

### Washington Group Suggests Tax on Pulp Mills

An initiative filed by a group calling itself Citizens for Clean Water was sent to the secretary of state last month calling for a tax on pulp mills that discharge more than 20 percent of their digester liquor into the state's waters.

Managing director of the group is R. H. Bailey of Seattle. Others listed as sponsors of Initiative 203 as it is called, are Edward J. Gruble and Dr. S. Maimom Samuels, both of Seattle. Bailey and Gruble are in the oyster business in the Northern Puget Sound area. One third of the pulp mills in the state would be affected by the initiative.

### Alaska Delegate Suggests Saimon Aid

Delegate Bartlett of Alaska last month suggested to the House in Washington that the United States join with Japan to find some way of removing Japan's reliance upon North Pacific salmon stocks.

Bartlett said it is imperative that some action be taken to ease Japanese fishing pressures which threaten Alaska's Bristol Bay salmon fishery with extinction.

He also said that if something is taken away there must be a replacement and he suggested the United States offer scientific assistance, surplus produce or capital as required to assist Japan in attaining a way of life that does not depend upon reaping what others have sown.

### International Salmon Commission Establishes 1958 Sockeye Salmon Rules

Sockeye-fishing regulations for 1958 were announced last month at New Westminster, B. C. by Senator Thomas Reid, chairman of the International Pacific Salmon Fisheries Commission.

The regulations, which were modified after the commission's meeting with its advisory committee at Bellingham, are subject to approval by the governments of Canada and the United States.

### Washington Representative Pelly Urges International Agreements

Representative Thomas M. Pelly of Washington has asked Congress to pass a resolution urging international agreements to abstain from fishing on the high seas in a manner to deplete stocks of fish which spawn in another nation. Pelly told the House that the abstention principle is the only safeguard against complete destruction of certain Alaska and Pacific Northwest salmon resources.

The Seattle congressman introduced a resolution which would declare it to be the sense of Congress that such an agreement should be sought by the United States delegation to the Conference on the Law of the Sea, in Geneva.

## Warrenton Resumes Shrimp Packing

Commercial shrimp packing has been resumed at Warrenton after two months of inactivity. Bad weather this winter prevented continuous operation of the new industry that was initiated last October. One of the two Warrenton firms packing shrimp has just installed a second peeling machine in anticipation of a good shrimp season this year.

## Tuna Fishermen Meet in Seattle

A special meeting of the Fishermen's Cooperative Association was held last month to discuss developments in the albacore industry. W. E. Farrar of San Francisco, general manager of the Federated Fishermen's Assoc. was present to discuss the problems connected with tuna imports.

Federation figures show that fewer than 1,000 American boats fished for albacore in 1957, compared with 3,000 boats prior to 1952. In the same period the Japanese fleet, which sends much of its production to United States markets, has been greatly expanded.

## Bill Would Provide Study Washington Pulp Pollution

A bill to provide an independent study of water pollution by pulp mills has been drafted for introduction at the next session of the Legislature.

The proposal is being sponsored by the Joint Legislative Committee on Fisheries and would make findings of the study binding on all parties to the pollution controversy. It would set up an independent five-man committee to resolve any conflicts.

Many oyster growers have gone on record as demanding enforcement of state regulations on industrial waste control. At a recent meeting of the State Pollution Control Commission, Bob Bowers, president of the Pacific Coast Oyster Growers Assoc., said that oil refineries are required to treat wastes, but that pulp mills are not.

## Land Acquired For New Oregon Fish Hatchery

Aquisition of 21½ acres of land adjacent to the Elk River near Port Orford for the construction of a \$200,000 salmon hatchery this year, was announced by the Oregon Fish Commission recently. Albert M. Day, state fisheries director said plans for the new hatchery have been progressing as scheduled and should be completed sometime in April. Actual construction of the project is expected to begin in late spring.

Day said the Elk River Hatchery is to be constructed entirely with state funds appropriated at the last session of the legislature. It will be used primarily for the production of chinook and silver salmon for release in streams along the southern Oregon coast. The Fish Commission presently operates five other coastal hatcheries and ten stations in the Columbia River drainage. Another new hatchery, financed with federal aid funds, is under construction near Bonneville dam.

The use of pumps to supply water to the ten fish rearing ponds and a small artificial lake will be a unique feature of the Elk River station. This will be the first hatchery in Oregon to use pumps for rearing pond water supply instead of the customary diversion dam-gravity flow system. At this particular site, pumping was found to be substantially more economical than construction of a dam.

Other facilities at the hatchery will be three residences for hatchery personnel, a utility building, and a hatching building equipped with twenty troughs for egg incubation.



George Wotton, Friday Harbor, Wash., uses his 42' boat "Ava" for trolling. She has a 110 hp. Nordberg engine that turns a 32 x 23 Coolidge propeller through 3.32:1 Paragon reduction gear. She uses Exide batteries, Columbian rope, 85 pound Danforth anchor, Ritchie compass, Akervick gurdy, and has a Wood Freeman automatic pilot.

## Director of Engineering Appointed To Oregon Fish Commission

Robert M. Hamill joined the staff of the Oregon Fish Commission as director of engineering early this month. Hamill was senior hydraulic engineer for the city of Portland for three years and more recently has been in charge of construction for the \$50 million Harvey Aluminum plant at The Dalles.

State director of fisheries, Albert M. Day, said Hamill will supervise all state and federally financed engineering activities conducted by the Fish Commission. This will include new hatchery design and construction, and all phases of stream improvement-work such as fishway design and construction and stream clearance.

The director of engineering post is the fourth top level staff position filled by the Fish Commission since January. Other positions filled in the past months have been state fisheries director; assistant fisheries director, George Y. Harry; and director of research, Robert W. Schoning.

## Shrimp Explorations Off Coast Of Oregon

With the advent of improved fishing weather, the U. S. Fish & Wildlife Service exploratory vessel *John N. Cobb* put out of Astoria to learn more about the distribution and abundance of shrimp of the Oregon-Washington coast. The main objective of the cruise is to gain additional knowledge concerning the commercial shrimp potential of the area centered off the mouth of the Columbia river, and to test the efficiency of various types and sizes of shrimp trawls. A 40 foot Gulf of Mexico flat-type shrimp trawl and two styles of larger Gulf semi-balloon trawls are among those scheduled for testing.

The *John N. Cobb* reportedly will test fish for shrimp during a two month period, which began in March. Although the primary interest is locating new beds of pink shrimp the vessel will also be looking for concentrations of the larger spot and side-stripe species. Traveling with the crew will be Oregon Fish Commission biologists Walter G. Jones and Rabert J. Ayers, who hope to gain further information on the extent of small food fish catches made during the shrimp hauls. The Fish Commission has already made preliminary observations along this line but desires more data on what effects shrimp trawling has upon food fish stocks.



"HERO" 53' fishing boat is used by Capt. C. E. Christensen, Winchester Bay, Ore. for otter trawling. Power is supplied by a 165 hp. General Motors engine turning a 38 x 26 propeller through 3:1 Twin Disc reduction gear and equipment includes Willard batteries, Northill anchor, Wall rope, and Roebling wire rope.

## California Tuna Boat Owners Propose Price Support

San Diego tuna boat owners have proposed a price support program for the tuna fleet as an alternative to other means of relief from foreign imports.

The price support idea is contained in a bill drafted by the American Tunaboat Assoc. of San Diego and sent to California Congressmen and Senators for study and recommendations. The bill is called the "Tuna Stabilization Act of 1958".

Harold Cary, manager of the association, said the bill is suggested only as an alternative in case other proposals by the industry are turned down by Congress. The other proposals, contained in the King Bill and in a recommendation that the State Department make an agreement with Japan limiting tuna imports, would set a quota on tuna imports.

Cary said the price support scheme would be similar to price supports for farm products. The Secretary of the Interior would be authorized to set up an arbitrary price support level called the tuna stabilization price. When the price of fish to the boats fell below this level, the government would make up the difference.

The long-range bait boats, albacore boats and purse seiners would be included in price support legislation. A separate price would be calculated for albacore, yellowfin, bluefin and skipjack tuna. The tuna stabilization price would be determined by costs of operation, the prevailing price for the fish on the open market, and the average market price over the preceding ten years.

## California Fishermen, Boat Owners Reach Tuna Price Agreement

Mason Case, manager of the Fishermen's Cooperative Assoc. of Southern California, announced that an agreement has been reached with boat owners for the payment of \$270 a ton for yellowfin and \$230 for skipjack tuna. This scale is the same tuna clipper crews are receiving for this species of tuna.

Fifty purse seiners operating principally out of Los Angeles harbor are members of the association and will be affected during the remainder of the 1958 fishing season by the price agreement.

## Record San Francisco Sole Catch Broken

Capt. Gildo Poalini docked at Fishermans' Wharf in San Francisco on March 19 with 70,000 pounds of dover sole, biggest sole catch landed here since before the Second World War. Members of the boat's crew said they had to throw back 15,000 pounds which they were unable to carry.

## San Pedro Fiesta Cancelled for 1958

San Pedro Chamber of Commerce directors voted on March 18 to cancel the 1958 Fishermen's Fiesta for at least one year. Cause of the cancelling was listed as the poor fishing in the port for the past several years, plus the plight of the tuna industry due to competition of Japanese tuna imports. Also figuring in the decision was the reluctance of boat owners to continue the fiesta in view of the troubled labor situation in the area in the past year.

The fiesta was held annually for 11 years and was originally just for the fishermen with the blessing of the fleet and a small party for local fishermen on their boats. Over the years it built up into a three-day annual event that included boat parades, dances, carnivals, competition for prizes and other events that annually drew over 100,000 people to the area.

If fishing improves the Chamber may attempt to sponsor a Fiesta in 1959, but in the meantime, local fishermen have indicated a "private" fiesta open only to fishermen which may be held this fall at the beginning of the sardine season.

## American Tunaboat Assoc. Official Confers with Chilean Officials

Harold Cary, manager of the American Tunaboat Assoc. was in Santiago, Chile recently to confer with Chile's foreign minister Osvaldo Saint Marie and other government officials on the operation of San Diego clippers off the South American coast.

Recently a Chilean plane fired on several San Diego clippers operating well off the Chilean coast. Chile, Peru and Ecuador claim jurisdiction for 200 miles offshore, but the United States does not recognize the claim.

At the recent world conference held in Geneva, Chile reaffirmed its policy of maintaining a 200-mile territorial limit off its coast. Cary stated however, that at his meeting with Chilean authorities an agreement had been reached whereby local clippers would pay fishing licenses if operating in inshore waters.

## California Boats Change Ownership

Boat sales were brisk at Moss Landing as the opening of the commercial salmon season on April 14 drew near. The 40-ft. troller *Lyda B.* was sold by Michael Ruda of Avila Beach to Joseph Hicks of El Verano. The boat has a Chrysler Royal 145 hp. engine, McBride 50-watt radio, Fisher receiver and direction finder. Other equipment includes a Hill-Cunningham automatic pilot, butane range, heavy duty electric winch, York compressor for refrigeration with an 8 hp. Briggs and Stratton auxiliary and 3 spool electric gurdies. Hicks will enter the commercial fishing ranks with the *Lydia B.*, working out of Moss Landing.

Pat Whiting sold his 41-ft. troller *Vigilant* to Oliver Holcomb of Salinas. Built in Rainier, Oregon, the *Vigilant* has a Chrysler Crown 115 hp. engine, Bludworth direction finder, Wood-Freeman automatic pilot and hydraulic anchor winch and salmon gurdies.

The 28 ft. Monterey clipper *M. Dellume* has been sold by Lee Evans of Los Gatos to Robert Brokaw of Redondo Beach. The boat has a Hicks one-cylinder 8 hp. engine, Raytheon radio and receiver, power gurdies and Jabsco pump. Coinciding with his sale of the *M. Dellume*, Evans purchased the Monterey clipper *Leona M.* from John Veitch and Eugene Haughey of Los Gatos. The *Leona M.* has a Gray 6 cyl. 77 hp. engine, Babbitt bearings, 6 and 12 volt electrical system, Collins radio and four spool Lucky gurdies.



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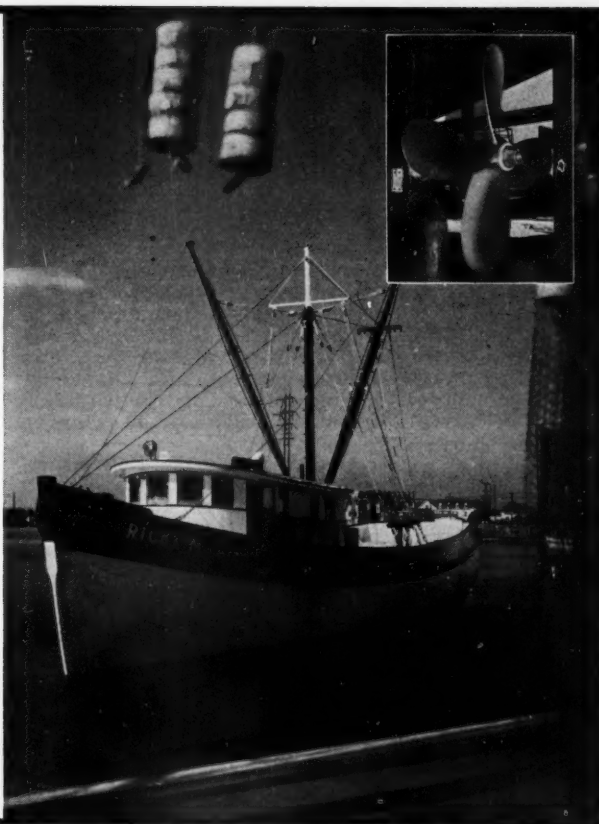
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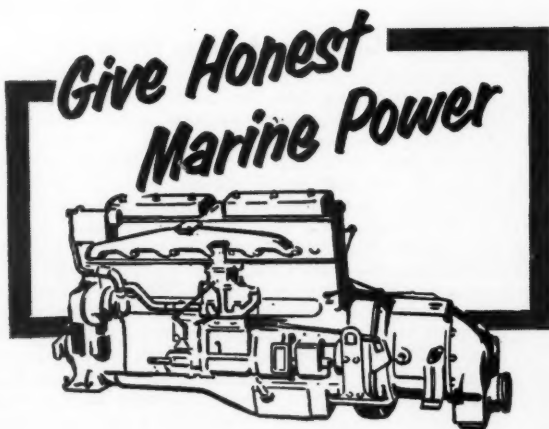
*\*The five vessels are the RICKY M (shown) SOUTHERN WAVE, CORPUS QUEEN, CAPTAIN SPORT and ALENE R*

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## SOUTH ATLANTIC

### Maryland-Virginia Oyster Dispute Soon May be Settled

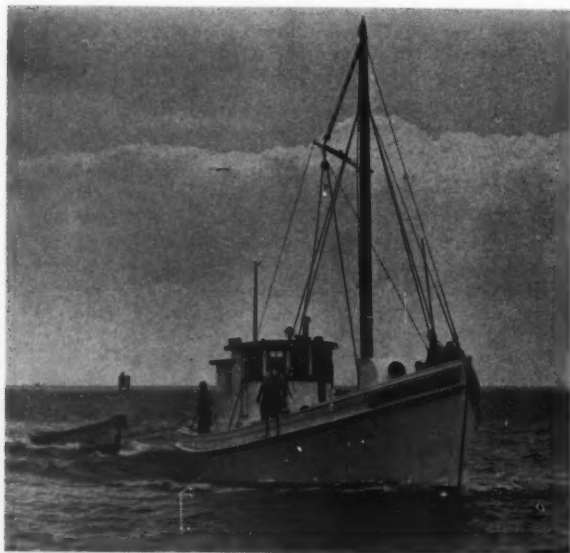
The possibility that the Maryland-Virginia oyster war may be happily resolved in a new compact, was reported last month. A conference was held last month which included Stanley Reed, retired Supreme Court Justice and the attorneys general of both states. Mr. Reed said that former controversies between the two states had heretofore been adjusted by agreement, and he saw no reason why the present differences could not likewise be adjusted.

He called for exploration of the possibility of such an agreement and ordered reports from the two states and further hearings on June 3. In an even more optimistic vein, C. Ferdinand Sybert, the Maryland attorney general said he hoped that all areas of disagreement with respect to the waters and fisheries of the two states would be ironed out.

### Want Maryland Seafood Business Probe

About 75 watermen met at Easton last month and approved a resolution calling for an industry-sponsored investigation of the Maryland seafood business. The survey would be made in order to advance the economic betterment of the seafood industry in the state, and would be made by a committee composed of packers, dredgers, tongers and allied interests. Ronald McGlaughlin of Dorchester County said at the meeting that it would help the oyster industry if the Tidewater Fisheries Commission would cooperate with oystermen by planting oyster shell stock in spots recommended by the watermen.

Ivy R. Todd, Jr. of Cambridge, who presided at the meeting, said the watermen must join together and stop arguing among themselves if anything is to be done to improve their economic position.



Powered with a 115 hp. Caterpillar engine turning a 42 x 34" Federal Propeller through 2:1 Twin Disc reduction gear, the pound netter "Thomas E." is owned by Capt. Henry Owens of New Point, Va. Equipment includes Surrrette batteries, Danforth anchor, Ritchie compass, Hudson-American radio telephone. Delo RPM lubricating oil is used.

### Moving of Oysters Approved By The Tidewater Fisheries Commission

The Tidewater Fisheries Commission recently promised that oysters taken from the polluted waters of the Choptank River will be placed in non-polluted areas of the river if they can be moved cheaply enough.

The polluted area from which the oysters would be removed refers only to the permanently closed area from Hambrooks Light to Oystershell Point. It does not include the stretch of river from Oystershell Point to Dover Bridge which was temporarily closed by the Health Department last fall. It is hoped that this area can be opened in time for another oyster season.

In previous years oysters from the polluted section of the river in the Cambridge area have been tonged up and sold to planters who took them out of the county to private rocks. Once moved, they are gone forever. Under the new plan oysters will remain in the county and should be ready for dredging next fall.

### Urges Maryland Oyster Program

David H. Wallace, former Tidewater Fisheries Commission member stated recently that the state should radically revise its shellfish rehabilitation program, and that the first step would be to put the commission on a sound non-political basis.

Maryland spends some \$250,000 a year on oyster cultivation efforts, but much of its efforts are being dissipated because the fisheries commission, in trying to cover the whole Chesapeake Bay, is, according to Wallace, spreading its resources over too great an area.

Wallace suggested that the State confine its oyster cultivation efforts to maintaining natural oyster bars which are "self-sustaining" those on which oysters are born and develop in commercial quantities without man's help.

Responsibility for building up low-yield oyster bottom should be left to private planters, Mr. Wallace believes. Wallace further stated that both the fisheries commission and private oyster farmers should increase efforts to grow baby oysters as seed, in those areas of the bay where the spawning rate is highest. He feels that a State-financed revolving fund should be set up which would give small operators including working watermen loans to begin farming.

### To Study Chesapeake Bay Fisheries

A large-scale economic study of the fishing industry in that part of Chesapeake Bay under the jurisdiction of the Baltimore Engineer District began in the Crisfield area on March 14. Crisfield was selected as a starting point in order to take advantage of the commercial activity there during the current oyster season.

The Crisfield survey will include Tangier and Smith Islands, Jenkins and Apes Hole Creeks and other waterways in the vicinity. Watermen, seafood processors and dealers will be interviewed by Vincent T. Sweigert, representing the Baltimore District Engineer's office.

The study, the first of its kind in the country, is being made by the Board of Engineers for Rivers and Harbors as a means of streamlining the work that must be done when the Corps of Engineers is requested by the Congress to investigate proposals for river and harbor improvements.

### New Seafood Firm at Somerset

A new seafood firm known as the Tangier Sound Seafood Co. was organized last month. Harold R. White of Somerset and L. V. Bozman of Crisfield have purchased the Wenona packing house and other equipment of the Somerset Seafood Co. from Richard C. Webster.

Mr. White was associated with Mr. Webster at Somerset for many years. Mr. White, who will manage the plant, said the new firm will deal in crabs, oysters and other seafood.

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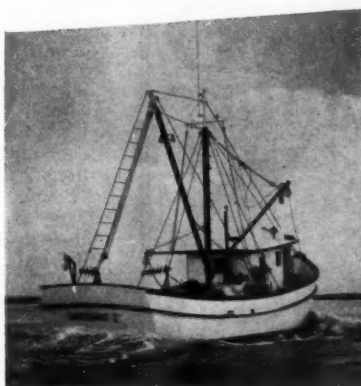
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## Expect Governor To Sign Georgia Shrimp Bill

The controversial shrimp bill passed by the General Assembly will become law when the governor signs the measure. The new law will insure that fishermen of the future will be able to use shrimp for live bait.

There have been many violations in that much of the shrimp secured has eventually been sold for food and has not been used for live bait. There has also been indiscriminate dragging for shrimp with power-drawn nets in the rivers and streams of Chatham and if the practice is not checked, the shrimp life in these rivers will be destroyed.

Opposition to the bill was generated in Savannah by fishing camp operators who claim the cost of live bait will rise if they are forced to drag in the sounds. They had asked for an amendment to the bill which would allow them to drag in the rivers and streams during daylight hours only.

However, the amendment was not attached and as the bill stands, it says that any person or firm who sells or otherwise disposes for human consumption any shrimp caught for bait or who takes shrimp with power-drawn nets from rivers, streams or creeks is guilty of a misdemeanor.

If, in the future, it is found that the new law works a hardship on fishermen or proves unworkable or unwise, it can still be amended in a future session of the General Assembly.

## Virginia Oyster Industry Enjoying Good Season

Oyster production continued at a normal level last month. As warm weather approaches, the oyster trade diminishes, but it seems that most of the houses this year will not close their doors this summer as many of them have done in the past, but will continue to operate throughout the year. It has been a good year for most people in the industry. Oysters have been fatter, and the industry has not been plagued with screwborers and diseases to the extent that it has in former years.

Oysters shucked in the Hampton Roads area in March up until around the middle of the month averaged approximately 5 to 6 thousand gallons daily. After that, the amount produced per day ran around 3 to 4 thousand gallons.

The Northern Neck shucked around 3 thousand gallons per day until after the middle of the month, and less after that. The Eastern Shore area shucked around 800 gallons daily.

## Virginia Catches of Excellent Quality

Virginia trawlers operating off the nearby coast of North Carolina last month were bringing a bumper crop of fish into the Hampton Roads area. The fish are reported to be of much better quality than those caught last year. Shad are being caught in small quantities and pound nets, haul seines and gill nets in the Hampton Roads area are active. On March 12 four trawlers landed 328,400 pounds of finfish in the Hampton Roads area. They were the Evelyn C. Brown, Malolo, North Sea and Pamlico.

## James River Oyster Bill Passed

The Corneal-Minter bill to safeguard the rich oyster seed beds in the James River was passed recently in the last days of the Virginia General Assembly. A proposed 35 ft. channel in the river between Richmond and Hampton Roads has caused much controversy and is still causing concern among the oyster interests in the State. The bill prohibits any dredging of the James unless both the Governor of the State and the Virginia Commissioner of Fisheries approves the application for dredging and for the disposal of the silt.

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NEW 53' SHRIMP TRAWLER "NITE HAWK", built by Diesel Engine Sales of Fort Myers, Florida, Inc., is powered with a 134 hp. D326 Caterpillar engine with 4.5:1 reduction gear. Owners, the Kiesel brothers and Mike Bassetta, are shown aboard.

## Diesel Engine Sales Launches Second Trawler at Ft. Myers

The second shrimp trawler to be launched by Diesel Engine Sales of Fort Myers, Florida, Inc. was delivered recently to the Beach Shrimp Co. of Fort Myers. The new 53' double rigged boat, *Nite Hawk*, is powered with a 134 hp. D326 Caterpillar with 4.5:1 reduction gear turning a 46 x 40, 4-blade Federal propeller on a 3" Tobin Bronze shaft. The engine is cooled by a Walter keel cooler.

Fuel capacity is 2,000 gallons. There is a 1,500-watt, Delco-Remy, 32-volt generator and a 750-watt Onan light plant. Other equipment includes four 8-volt Yocam batteries, Goodrich Rubber Cutless bearing, and 7" Ritchie compass. She is finished with International anti-fouling paint on the bottom and Gloucester Sea Jacket paint on the topsides. The boat carries Stroudsburg Model 515½ hoist and is rigged with Columbian rope. Gross tonnage is 35 and net tonnage is 14.

## Florida Firm to Seine Sardines in Gulf

The Pinellas Seafood Co., large fish house of St. Petersburg plans to net sardines in the Gulf of Mexico in the near future.

Leon S. Kenney, who controls the company, announced the project and added that the small fish to be taken—in from two to three fathoms—will be frozen and sold for bait. The fish will be real sardines and not "white minnows" or what are known as "thread herring".

## Big Scallop Bed Found off Panama City

A large bed of deep water scallops in the Gulf of Mexico off Panama City was discovered recently and boats of the Holmes Fishing Co. have been returning with 100 to 300 bushels a day, and sometimes as many as 500 bushels. The boats formerly brought in about 25 bushels a day from shallow bay waters.

J. D. Holmes, Jr. owner of the firm said that with the finding of the 10-square-mile bed he will increase his payroll from about 100 persons to about 400.

## Florida Lobster Season Extended

Florida lobster fishermen received 15 extra days of fishing in order to help them recover from financial losses suffered during the recent winter freezes. The Cabinet, upon recommendation of Conservation Director Ernest Mitts, voted to extend the 15 days to April 15.

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## North Carolina Rebuilding Oyster Industry

North Carolina is trying to bring back its oyster industry to the prominence it once had among the oyster-producing states. Some 277,000 bushels of seed oysters are being planted in specially selected water of Carteret, Pamlico, Hyde, Darc, Onslow, Pender, New Hanover and Brunswick counties by the Dept. of Conservation and Development's commercial fisheries division.

The transplanting of the oysters is being supervised by Dr. A. F. Chestnut, director of the Institute of Fisheries Research, Morehead City. Areas now being planted will be closed for at least two years unless investigations reveal the oysters have reached the legal shell length of three inches.

The second phase of the oyster rehabilitation program will come in May when approximately 162,000 bushels of shells are scheduled to be planted in waters known to be favorable for the growing of quality oysters.

### North Carolina Fishermen Land Record Haul of Fish

About 1,300,000 pounds of fish—representing the largest catch in the 20-year history of the state's offshore trawlers—were taken during one week last month off the North Carolina coast.

President Roy Watson of the North Carolina Fisheries Assoc. said 98 percent of the catch was croaker, with about 70 percent of them large and medium. Some 13,000 boxes of the fish were packaged at processing centers.

### To Discuss Chowan River Netting

State Conservation and Development Board was scheduled to take up at its meeting this month a controversy between sports and commercial fishermen over regulations governing the netting of fish in Chowan River commercial fishing areas.

The commercial fishermen contend they should be allowed to use the mobile "gill net" to fish for the runs of rockfish, herring and shad in the mouth of the Chowan and opponents of such a move argue that the area is receiving more revenue from sports fishermen than from commercial fishing and are opposed to any curtailment of the fish supply from this source.

### South Carolina Bill Would Limit Oyster Catches

Senator James B. Morrison of Georgetown last month introduced legislation which would straighten out just how many oysters it is legal to gather. The bill sets the limit at two bushels a day in South Carolina bottoms with two exceptions, and no more than two days of two-bushel gathering in one week. Except from the general provisions are the areas of the Cherry Grove Beach Development and East Cherry Grove Realty Companies in Horry County.

### South Carolina Fish Production For 1957

Fish and shellfish production in South Carolina during 1957 amounted to 24.3 million pounds. Menhaden and shrimp were landed in greater quantities than other species, and made up 56 percent of the total. Blue crabs, mullet, spot and oysters were next in importance.

Production was the greatest during June through November. Landings during this period made up 86 percent of the year's catch. A total of 519 fishing craft was licensed in the state to fish for shrimp. The shrimp catch totaled 6.7 million pounds. Foodfish landings totaled 5.2 million pounds and consisted mostly of mullet and spot.

Small oysters were successfully transplanted to waters of more northern states during 1957 and it is expected this phase of the fisheries may increase.



## GREAT LAKES

### Find New Chemicals That Kill Lampreys

Six chemicals that kill sea lampreys, even in small doses, but do not seem to harm other fish have been discovered. The chemicals should be even more effective in actual streams than when tested under laboratory conditions.

Drs. Vernon C. Applegate and John H. Howell of the Fish and Wildlife Service, Rogers City, Mich., and Manning A. Smith of Bucknell University, Lewisburg, Pa., have found that six mononitrophenols containing halogens are more toxic to sea lamprey larvae than to fish or other water organisms. These chemicals are equally or more effective when used as sodium salts. In laboratory experiments, the men found that it took a much higher concentration of the chemical to kill ten percent of the fish than to kill all the larvae. The amount was double or more, in most cases.

In lab tests, several of the compounds killed all the lamprey larvae in less than 4 minutes, with no apparent harm to the fish exposed to the same concentration for 24 hours. A runway was constructed to duplicate natural stream conditions and two of the compounds were further tested. These experiments showed that the toxic effects of each of the substances upon the fish seemed to be considerably less than effects observed under laboratory test conditions.

At least six generations of larval sea lampreys live in the stream in which they are spawned, before migrating to their parasitic existence in the Great Lakes. With the present method of blocking the streams, with electrical barriers that kill or repel adults before they reach spawning grounds, as much as seven years may pass after all suitable streams are blocked before the lamprey population shows any marked decrease.

### Chub Fishing Good

Commercial fishermen in the Port



THE "EWIG", owned by Herbert Ewig of Port Washington, Wisc., is equipped with Exide batteries, Linen Thread nets, Michigan propeller, Surecho depth-sounder, and is finished with Pittsburgh paint. She is powered by a 75 hp. Kahlenberg Diesel.

Washington, Wis. area of Lake Michigan reported taking up to two tons of chubs per lift, during the last week of February. Some fishermen said they could make two trips a day, but simply couldn't find time to clean fish and repair nets if they made the extra trip. Chubs were bringing a top price of 30¢ a pound, with mediums selling for 16¢ and mink food for 3½¢.

### Research Vessel Schedule Announced For Lake Erie

During the 1958 season, the research vessel Cisco will be assigned to operate on Lake Erie. The vessel will participate in a cooperative research program developed jointly by the states bordering Lake Erie, the province of Ontario and the U. S. Bureau of Commercial Fisheries.

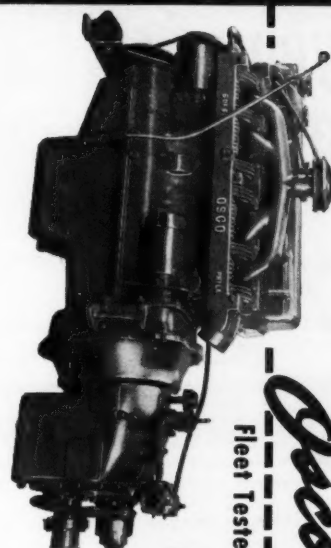
The Cisco was scheduled to depart Bay City for Lake Erie on March 24 and is to operate on a two week schedule from March 25 through November 4. For the most part, the operation of the Cisco will be confined to that part of Lake Erie lying west of Pelee Point, Ontario and Lorain, Ohio.

Major objectives of the work by the Cisco during the year will be to help gather as much information as possible concerning the life history of 15 important species of fish in western Lake Erie. Special emphasis will be placed on spawning habits, egg survival, hatching, fry survival, and early life history.

Three times during the operating season the Cisco will join with a number of other vessels from Ontario, Ohio, and the Bureau of Commercial Fisheries research vessel *Musky* in a general survey of western Lake Erie.

The operation is designed to produce, largely by means of chemical analysis of water samples, information concerning the currents and movements of water masses in that part of the lake.

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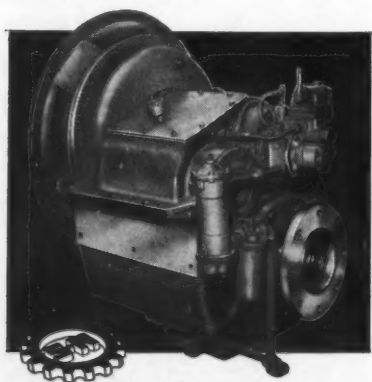
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## Double Rigs in Florida

(Continued from page 14)

aged 22 to 23 boxes for the same length of time.

Earl J. Toomer, Jr. of Key West and Freeport, Tex., reports that his converted *Turnabout* brought 57 boxes into Freeport after eight nights. Thad Toomer's *Po Boy* delivered 30 boxes after eight nights during a first run in Tortugas. Both men are double rig advocates. Owner-captain M. A. Danburg of Vero Beach, Fla. is also a dual net convert with his boat *Little George*.

Expense is one major factor in conversion. Whereas the cost of having a new boat designed for double rig is not so much greater, the cost of converting an old boat from single to double runs from \$1,200 to \$2,000. This amount may or may not prove prohibitive to an individual owner ready to experiment with the touted gear. But to a big operator like Thompson Enterprises of Key West, which owns a fleet of 30 shrimp boats, the figure can become a ponderable one.

Other disadvantages in the opinions of some Florida fishermen are the net cable on the bridle may close in if there is a preponderance of jelly fish, an additional weight of 35 pounds of iron is necessary for the doors or they don't hit the bottom and the net doesn't drag properly, and sometimes the nets get tangled in the wheels causing a foul up.

It also is claimed towing two nets creates additional drag on the engine, causing it to heat up with extra wear and use more fuel and that there is a strain on the boat. Finally, if there is a congestion of boats, a double rig may be difficult to handle.

A demonstration of single rig production comes from Dr. J. L. Lester, Jr. of Key West who, during eight nights in Tortugas, brought in 2,655 pounds on November 23, a better than average catch.

Representative of the conservatives who are continuing to use single rig, at least in part, is the Key West firm of A and B Fish Company. President Berlin Felton acknowledges double rig as "a trend of the times" and feels that the industry is "switching". He cautiously observes, however, that it is a "new venture" and that he is "waiting" this season. In early winter he felt that "single rig is equally as productive as double rig as far as this house is concerned".

The seven boats owned and operated by A and B remained single rig this season, with one new boat, the *J. T. Felton*, being built double. Another A and B official, Manuel N. Jacobsen, believes that the double rig is "still floundering... hit or miss fishermen... not yet true value."

Felton points out further that although production may be increased by use of dual nets, the actual margin of profit is narrowed from gross

income because both crew and packing house must be paid.

John N. Thompson, president of Thompson Enterprises, stated concerning the "double rig means double production" theory; "I'm not sold on that by any means". He felt that the innovation is contingent today on such factors as "the captain of the boat" and "the luck of the game". He also questioned the adequacy of double rig for Tortugas, where there is not the tremendous scope of Campeche and Texas.

Geography, therefore is another important consideration in workability of double rig. Most fishermen agree that the dual operation has proven itself in Texas, where there is a concentration of shrimp and little or no jellyfish. But, at Tortugas the shrimp are scattered over a wide area, fishermen must scrape for the catch, and jellyfish are in abundance.

In its current stage, the successful operation of two nets depends partly on the skill or experience of the fisherman. There seems to be a clear correlation between success and length of use. Highest catches are brought in by captains who fished double in Texas in the '56-57 season, and started early in the '57-58 season fishing double in Campeche and Tortugas. The least successful are those who have just started in Tortugas, and are still experimenting and learning.

Meanwhile, interesting discoveries are being made daily by double rig pioneers. Mitchell Tate, for instance finds that he gets best results from pulling one balloon net and one two-seam net. On moonlight nights the balloon net which fishes higher, is better. For dark nights, the two-seam net is best.

M. A. Danburg likes the Stroudsburg hoist for double rig because "you can put two winch heads instead of one and the drums are perpendicular with the boat".

Earl Toomer remarks that less use of the clutch means economy of parts. In the old method the clutch was reversed every three hours, while in the new method the boat need never stop.

Long range conservationists have varied reactions to the revolutionary, potentially powerful source of greater production. They must consider what the one-third to one-half higher catch will mean to the industry in ten or fifty years from now.

Berlin Felton states "the boats have already crowded the grounds, with 5,000 operating today. Multiply them to 10,000, the equivalent possible catch with two nets, and there may be a break somewhere. Double rig is not the answer to shrimp production for years to come." Of a different school, Joe Knight, Florida State Conservation Bureau Salt Water Division, Monroe County, declares, "I don't think use of double rig will deplete the stock. Shrimp repopulate pretty fast."

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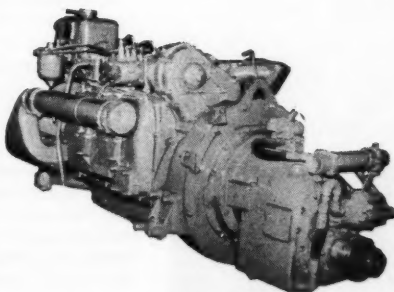
## Electrical Fishing

(Continued from page 12)

There are fishing gears in the shape of weirs or traps, such as have been installed in the estuary of the River Indalsalven, Sweden. These are fixed installations for driving the young, descending salmon into the basin where they are caught. The fish are driven by the effect of the anode and by the current of the water towards the trapnet, where they are concentrated and paralyzed. The stunned fish are then transferred into the catching box by the water current. Similar equipment is being installed in the rivers flowing into the Great Lakes to prevent migrating fish being caught by the electrical equipment designed for killing the sea lampreys.

An electrical line has been designed for paralyzing or killing tunas. It can be used in any fishing ground where tuna are caught by lines. It is well known that up to fifty percent of the hooked tunas may escape, and that during the long struggle on the hook, the tuna increases its lactic acid content, which greatly reduces the keeping quality of the meat. The electrical tuna line enables the tuna to be paralyzed immediately as it is hooked, sometimes even killed. It insures that the tuna will not escape and the other disadvantages are avoided.

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# EQUIPMENT and SUPPLY NEWS

## New Inflatable Life Raft Features Complete Weather Protection

New Bedford, Mass. was the scene of the first full-scale demonstration of a new inflatable life raft in this country. The raft, a product of the Sea Rescue Division, Fabric Combiners Ltd. of England, is called the Seafarer. Captain Arthur J. Pedersen of Portland, Me., Atlantic Coast distributor for the firm, held the demonstration.

The model shown holds 12 men when it is inflated, but when stowed in a canvas sack, it measures only 4'2" long by 2'2" in diameter. The rafts are made of rubberized cotton fabric. Bouyancy is achieved by inflating with carbon-dioxide gas, carried in a cylinder attached to the floor of the raft. Inflation is begun by pulling a cord, when the raft is launched. The raft is boardable in 15 seconds and is fully inflated in 30 seconds and may be launched from any place on the boat.

The two main buoyancy chambers will support the raft separately if one or the other is damaged. A tent is attached to inflatable arches and rises with them giving occupants full protection from the weather. The floor may be inflated or deflated to insulate against extreme temperatures.

The ends of the tent are open, but may be closed if necessary. When inflated the 12 man raft is over 12 feet long, nearly 8 feet wide and is 4 feet high. There is a signal light on top that is activated by sea water and a light inside that is operated from a battery. The raft is supplied with a survival pack and is equipped with rain water catchers on either side of the tent.

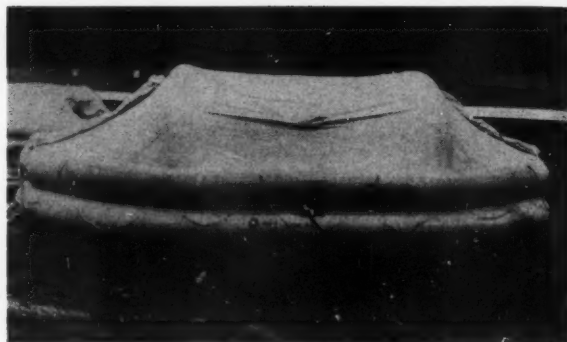
Seafarer life rafts are available in 8 sizes ranging in capacity from 4 man to 20 man. Weight of the raft varies from 60 pounds for the four man raft to 320 pounds for the 20 man raft.

## Goff Selling Red Wing in Rhode Island

L. M. Goff Company, Providence, Rhode Island, has been appointed distributor of Red Wing Marine Engines, and will also sell Barr Engine Conversion Kits and Walter Machine Co. products. Luther M. Goff, in charge of the company, is a graduate of the Maine Maritime Academy,



Columbian Rope Co. officials discussing an application for the erection of a cotton spinning mill in the Philippines, the export of abaca from which manila cordage is made, and exchange rates. Left to right, Philippine President Carlos P. Garcia; Frank R. Metcalf, president Columbian Rope Co. of Philippines, Inc.; Mr. Floriando, president Tagum Development Corp.; and Mr. Robie, vice-president and general manager Columbian Rope Co. of Philippines, Inc. Columbian is the only U. S. rope manufacturer that maintains its own packing establishment in the Philippines.



Seafarer inflatable life raft made of rubberized cotton fabric, inflates with carbon dioxide cylinder in 30 seconds.

Class of 1950. He has had wide experience with marine engines, having been engineer on tankers, and later serving in the Korean War as repair officer on a U. S. Navy repair ship.

For several years the Goff Company has made a specialty of outboard engine service work and the sale of engine parts for the area. The business has lately expanded to a large building at 212 Broad Street in downtown Providence, where ample parking space is provided. Excellent shop facilities for service and repair are features of the new location. The company will continue to operate in conjunction with the Marine Sporting Center retail store.

## Richardson Has New Simplified Automatic Pilot Design

A. Richardson & Son, Warwick, R. I. has announced a significant advance in the design of automatic pilots for work boats and fishing boats. Richardson has developed a new concept of control for its Master Pilots, which eliminates the corrosion on contact points, relays, and moving parts that result in loss of sensitivity and a lag in response.

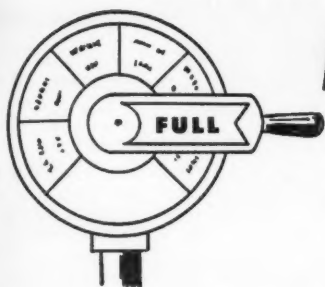
The new unit couples a beam of light directly to a specially wound DC motor without the aid of relays, tubes or moving parts. The slightest movements of a magnetic compass card or gyroscope cause minute changes in the intensity of the light reaching crystal photocells. These variations of intensity are simplified to directly start, stop, or reverse the specially wound motor. The result is a smooth, stepless, proportional operation, sensitive to a fraction of a degree.

A single adjustment control allows the operator to select the sensitivity most suitable to the speed of the vessel and to the conditions of wind and sea, for the most efficient operation at all times. The control unit is designed to respond to only one heading in 360 degrees once it is set, eliminating the pick up of a false heading. It is also possible to change course up to 180 degrees in either direction, in one step, without disengaging the pilot.

## Patent Granted for Western Jib

V. L. Harris of Western Trawl & Supply Co., et al, Freeport, Texas, has been granted a patent (No. 2,816,236) on the Western Jib. The patent applies to the jibs or corners of a flat trawl.

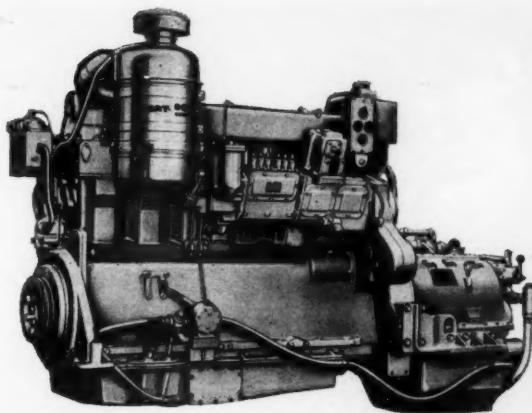
Anyone wishing to build this type trawl should contact Western Trawl & Supply for royalty arrangements. Any



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jib or corner which is tapered on the hanging side and body side, and straight on the wing side, is considered a Western Jib, regardless of the type of taper.

### New Maine Columbian Bronze Distributors

Columbian Bronze Corp., Freeport, N. Y. announces the appointment of the Manset Marine Supply Co., of Southwest Harbor, Me. and their Boothbay division, Marine Service, Inc., as warehouse distributors for Columbian propellers and accessories for the state of Maine. The firm, operated by Bill Johnson and his associates, Wally Birlum and Bill Carswell, will carry a complete stock and will specialize in Columbian's Customized outboard propellers. This is another step in the expansion of Columbian Bronze's distribution system to insure faster deliveries and closer tie-in with their marine accounts.

### Twin Disc Engine Rating List

A list of marine engines with suitable ratings for the new Twin Disc MG-521 marine reverse and reduction gear has been compiled by Twin Disc Clutch Co., Racine, Wisc. Engines included are the Atlas 35 SX; Allis-Chalmers 6 DCBMR 1879; Allis-Chalmers 6 DCSMR 1879; Allis-Chalmers 8 DCMR 2505; Caterpillar D353; Cleveland Diesel 6-268-A; Cummins VT-12; Cummins NVH-12; Enterprise DMM4; Fairbanks-Morse 38F5 1/4-4; IHC UD-1091-T; Murphy CBD 24; Waukesha NKD; Waukesha NKDS; and Waukesha IRD.

The Twin Disc MG-521 is rated as 450 hp. continuous service at 1600 rpm. and may be operated at speeds up to 1850 rpm. It is available with 2:1, 3:1, and 4:1 reduction ratios.

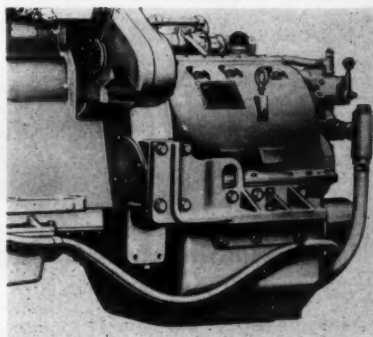
### Jaynes Handling Small Fairbanks-Morse

Jaynes Auto & Marine Supply of Salem and Onset, Mass. is handling the Model 45C4-1/8-2 Fairbanks-Morse marine propulsion engine, which has a continuous duty rating of 32 hp. at 1800 rpm.

The 2-cylinder, electric starting Diesel, which was exhibited by Jaynes at the New England Boat Show, has direct reversing gear and clutch. Aluminum alloy is used extensively in the engine to provide a lightweight, medium speed unit for heavy duty service, such as is required on small fishing boats. It is available with reduction gear.

The engine is furnished with direct cooling or with shell and tube type heat exchanger for fresh water cooling. If low lube oil pressure or high water temperature develops, the unit shuts off automatically. There is a 2-groove pulley sheave for front end power take-off.

**New Twin Disc Model  
MG-521, high capacity  
marine reverse  
and reduction gear,  
rated for 450 hp.  
continuous service.**





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## Researching Tuna Habits

(Continued from page 11)

recorded in the latest annual report, is an example of the type of research done by such organizations.

### Tuna Research Covers Wide Scope

An important part of the Commission's program is the evaluation of tuna populations to determine their size and whereabouts, as well as learning the degree of fishing to which they are subjected. This is done through the cooperation of the commercial fishing fleets operating from United States ports, plus additional information supplied by boats out of the Latin American ports and Puerto Rico. With information acquired from these sources, together with that gathered in years previous, a comparison can be made from which the condition of fish stocks and the effect of fishing them may be estimated.

Another problem considered by the Commission is the extent to which the populations of tuna species are independent. The importance of this to the fisheries is shown by the uneven distribution of the tuna populations and therefore their unbalanced exploitation, throughout the ocean. The seemingly complete independence of one specie from another becomes the big problem in determining the population structure or distribution of the Pacific tuna.

While the mingling between species seems to occur at very restricted levels, investigations have shown improbability of any completely distinct, self-contained groups. There are three methods for determining the extent to which the species are independent or non-independent, and the boundaries to which the groups are restricted. Measurements of the external characteristics of fish taken from various commercial vessels show variations greater than mere sampling differences.

These dis-similarities seem to indicate that there is no completely uniform population, but, also the possibility of excessive mixing is unlikely.

By sampling commercial landings it is possible to determine whether likenesses or differences are characteristic of certain areas only. The samplings also indicate whether or not the growth rate is different in various areas and whether the degree and manner of variances in size show migration patterns.

The tagging method is perhaps the most direct and best known method of following migratory trends. The marking, releasing and recapturing of the tuna gives a clear picture of the movements of both individual and small groups of fish. However the overall return is small due to the death of fish from tagging techniques, loss of tags in the water, or the failure of the tags to be discovered when the fish is recaptured.

From the size of a fish, and the amount of fish that size within a catch, taken over an extended period of time and a wide area, an estimate can be made of the rate of growth and the mortality rate of the fish. Variation in size of fish from year to year, composition, of the catch growth rate, and intensity of fishing can predict the occurrence of a dominant age group.

### Two Ways to Learn Spawning Habits

Two methods are being used to discover the spawning areas and reproductive seasons of the tuna. Information is obtained from the systematic examination of the essential sexual glands of adult fish landed by commercial boats, observing the time and places where ripe and spent females are found. Another lead to the reproduction of tuna is the study of egg, larvae, and juvenile occurrences in plankton hauls or taken by dip nets under lights at night. This method is restricted by a limited knowledge about the characteristics in the different stages of the various species. So little is known about the mature tuna eggs that it is nearly impossible to distinguish them from those of other fishes let alone a different specie.

From examination of records kept by the commercial



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fishing vessels, it is seen that the distribution of tuna over the Pacific is uneven. However, in certain regions, there tend to be concentrations of fish which remain constant through the years, although the value of these concourses may vary from season to season and year to year. The areas of concentration have existed for years, leading to the assumption that they are determined by permanent features of the ocean.

In other areas, during the past summer, the Pacific Oceanic Fisheries Investigations began an intensive study of such concourses, where skipjack tuna regularly gather. Although the concourses have been recognized in the past, no scientific study had been conducted to discover why the tuna concentrated in these areas. The study was made off Lanai in the Hawaiian Islands.

A series of chumming stations was established and visited more than a dozen times during a summer month. Each time tuna was taken, but the question of whether the fish were resident or transient to the area arose. To learn the answer, a program of tagging was set up, during which, 1600 tuna were marked with plastic darts.

At the close of the study, eight percent of the tagged fish had been retaken, together with fish tagged in other parts of the Islands. After tagging was stopped, returns in the area decreased considerably, while tuna tagged in concourse began showing up elsewhere, indicating a moving population rather than a resident one.

Any reason for such attraction to a single area was not in evidence and an intense examination of the place of concentration was begun. Physical, chemical, and biological data were collected from the area to discover why fish congregate in a particular place.

Some months earlier, exploration from Northern California to Southern British Columbia to determine the distribution and the availability of albacore tuna, was carried out abroad the U. S. Fish & Wildlife Service exploratory fishing vessel *John N. Cobb*. Offshore fishing

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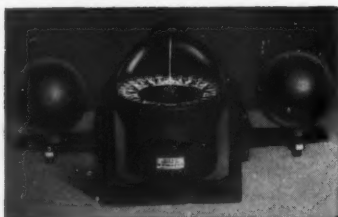
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was conducted during a seven week period and extended 800 miles from the coast of Oregon and Washington. The University of Washington's oceanographic vessel *Brown Bear* worked closely with the *John N. Cobb* most of the time. It was discovered that high seas gill-nets designed for catching salmon were effective on albacore.

To assure adequate coverage of the area in a pre-scheduled amount of time, a cruise plan was laid out. A series of 27 gill-net stations was to be occupied in successive nights or if the distances required two days running time, on alternate nights. Courses were planned so that the *Brown Bear* would occupy concurrent all night stations at several of the *John N. Cobb* gill-net stations. When the vessels took separate courses they were in radio contact with each other several times a day. Arrangements were made for the vessels to keep in touch with the commercial trolling fleets of Washington and Oregon to relay any significant catches of albacore.

The gill-nets used were of nylon, mesh, measuring from 3 1/4" to 8 1/2", stretched. Each shackle of net was 50 fathoms long and 20 fathoms deep. Shackles of various mesh measurements were tied together with a lighted flagpole at each end and the middle of the string. The standard was 900 fathoms of 3 1/4 mesh, 4 1/2 mesh, 5 1/4 mesh, 7 1/2 mesh, and 8 1/2 mesh. During the last part of the cruise, the 7 1/2 and 8 1/2 inch mesh nets were replaced with 4 1/2 and 5 1/4 inch nets because the larger nets did not prove effective in catching albacore. The nets were set from a bin in the stern of the boat and were hauled over the bow by a hydraulic gurdy.

Three trolling lines were fished from each of two outrigger poles on the *John J. Cobb* and one or two lines were rigged on the stern. All the standard commercial gear used by the local fishing fleets was used, as well as feathered, plastic, bone and rubber colored albacore jigs.

### Good Commercial Catches Follow Survey

Although the fishing revealed a wide distribution of albacore the individual catches were quite small. No more than 38 albacore were taken on trolling gear and 25 were caught in the nets. Thirteen were observed but were lost before they could be taken. The albacore caught ranged in size from 19 inches to 30 inches in length and weighed from 5.5 to 20 pounds.

Following the related information of albacore catches made by the *John J. Cobb* and the *Brown Bear*, several commercial vessels started to troll in the area near the Oregon coast and immediately reported good catches that continued for several months. It was the first time, since 1950, that good catches of albacore had been made north of California.

More recently, a survey of albacore resources in the North Pacific between the United States and Hawaii was conducted. The survey was an intensive and reconnaissance of the actual and potential albacore feeding grounds, by the research vessels *John R. Manning* and *Hugh M. Smith*, which was completed last summer. They were assisted by seven chartered, commercial boats.

With the boats, the Northeastern Pacific Albacore Survey covered the area north of Hawaii to the United States mainland, where a strip 350 miles wide from the Columbia River to southern California received an exacting coverage.

The survey was carried out in two parts, the first of which was a preliminary reconnaissance of the area. The *John R. Manning* trolled and used gill nets over a zig-zag course with the *Hugh M. Smith* following, to take information on water temperature and other pertinent characteristics of the water at various oceanographic stations.

The second phase consisted of a concentrated examination of the United States coast to a distance of 350 miles out by the nine boats. The *Hugh M. Smith* acted as the command vessel, coordinating the survey in that area. One thousand albacore were caught and 48 were tagged.

It is hoped that their recapture by commercial boats during the fishing season will shed some light on tuna movements in the coastal fishing grounds of the Eastern Pacific.

# BOAT CATCHES

For Month of March

Hailing fares. Figure after name indicates number of trips.

## ROCKLAND (Me.)

Araho (2)	220,000	Mabel Susan (4)	65,500
Elin B. (4)	192,500	Ocean (1)	290,600
Ethel B. (1)	1,000	Rhode Island (1)	31,000
Flo (3)	137,000	Squall (1)	280,000
Helen Mae II (2)	54,000	Storm (1)	270,000
John J. Nagle (2)	142,000	Surf (1)	275,000
Little Growler (1)	21,500	Tide (2)	460,000
Louise G. (4)	73,500	Wave (1)	300,000

## Scallop Landings (Lbs.)

Pocahontas (2)	22,000	Rhode Island (1)	6,000
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## NEW YORK

Andrea G. (3)	116,300	Felicia (3)	194,900
Austin W. (3)	112,300	Golden Eagle (4)	493,500
Carol-Jack (5)	305,500	Joseph S. Mattos (1)	44,100
Clipper (5)	189,500	Lady of Good Voyage (4)	151,800
Cushman (1)	49,000	Manuel P. Domingos (1)	58,000
Edith L. Boudreau (5)	226,600	Tina B. (4)	187,400
Evelina M. Goulart (4)	150,500		

## Scallop Landings (Lbs.)

Barbara & Gail (2)	21,000	Enterprise (1)	11,000
Beatrice & Ida (1)	8,000	Muskegon (1)	4,000
David A. (1)	11,000	Norseman (1)	8,600

## STONINGTON (Conn.)

Averio (1)	400	Jane Dore (12)	12,700
Bette Ann (12)	10,000	Lt. Thos. Minor (8)	20,500
Carl J. (13)	26,700	Marise (16)	10,400
Carolyn & Gary (15)	22,500	New England (1)	2,400
Connie M. (15)	16,700	Old Mystic (12)	17,200
Fairweather (1)	2,400	Our Gang (1)	1,400
Five Sisters (1)	600	Theresa (1)	1,600
Irene & Walter (1)	700	William B. (5)	7,400

## WOODS HOLE (Mass.)

Arnold (3)	15,700	Madeline (2)	4,000
Bernice (2)	7,100	Margie L. (1)	7,100
Carl Henry (1)	6,100	Papoose (3)	18,900
Carole Ann (4)	26,800	Roann (2)	42,400
Curlew (3)	12,700	R. W. Griffin, Jr. (1)	11,100
Famiglia (1)	11,600	Southern Cross (2)	6,700
Gertrude D. (1)	6,700	Three Bells (2)	10,000
Lynn (1)	13,200	Victor Johnson (3)	18,700

## Scallop Landings (Lbs.)

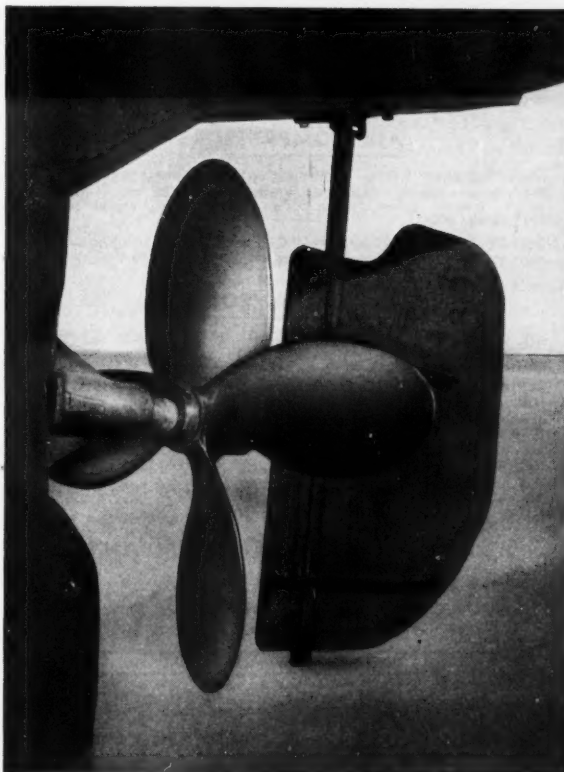
Mary J. Landry (1)	3,100	Whaling City (1)	2,900
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## NEW BEDFORD (Mass.)

Adventurer (3)	41,600	Lorine III (2)	40,000
Agda W. (2)	14,500	Lousam (1)	19,000
Althea (2)	13,700	LuAnn (2)	28,500
Anastasia E. (4)	32,000	Lubemray (1)	14,700
Annie M. Jackson (2)	31,500		
Barbara M. (2)	27,900	Major J. Casey (3)	35,000
Cap'n Bill II (2)	41,700	Malvina B. (1)	10,000
Cap't Deebold (2)	22,100	Marie & Katherine (2)	36,400
Carl Henry (2)	27,800	Mary E. D'Eon (4)	48,000
Charles E. Beckman (3)	24,200	Mary Tapper (3)	37,000
Christina J. (3)	88,800	Midway (1)	24,000
Christine & Dan (2)	30,400	Miriam A. (3)	67,000
Comber (3)	45,200	Molly & Jane (1)	36,500
Connie F. (1)	23,000		
Debbie & Jo-Ann (1)	13,500	Nautilus (1)	45,500
		New England (2)	21,000
		North Sea (2)	46,000
		Olive Williams (1)	11,500
Estrela (1)	134,500		
Eugene H. (2)	53,200	Pauline H. (3)	203,600
Eunice-Lillian (2)	27,500	Phyllis J. (3)	35,000
Falcon (3)	37,000	Rita B. (1)	12,000
Famiglia (2)	26,500	Robertta Anne (2)	24,000
Friendship (3)	38,700	Rosemarie V. (3)	44,300
		R. W. Griffin, Jr. (2)	55,000
Gannet (2)	43,500	Rush (3)	39,500
Growler (3)	52,600		
		Shannon (2)	28,000
Harmony (2)	27,200	Solveig J. (3)	155,700
Hope II (2)	27,400	Stanley B. Butler (2)	91,000
		Sunbeam (2)	33,000
Invader (1)	32,300		
Ivanhoe (2)	40,500	Teresa & Jean (3)	109,000
Jacintha (3)	118,500	Vagabond (1)	18,000
Janet & Jean (5)	61,800	Venture I (2)	43,500
Julia DaCruz (3)	47,800	Victor Johnson (1)	23,700
		Viking (2)	35,400
Katie D. (2)	120,900		
Kelbarsam (4)	39,700	Whaler (2)	56,500
Lisboa (1)	2,500		

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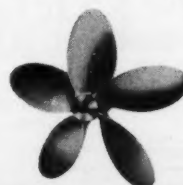


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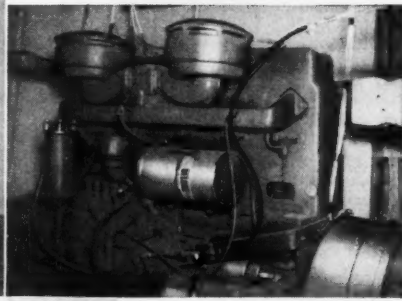
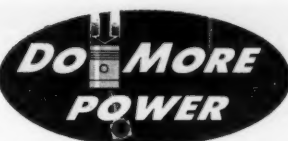
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Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

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American Steel & Wire Division, United States Steel, Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio.  
John A. Roebling's Sons Co., Trenton 2, N. J.  
Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

## FOREIGN BAILINGS

### MEXICAN SHRIMP FISHERMEN

and boat owners from the Pacific coast have protested to the President of Mexico against the bringing of Japanese vessels and crews to catch shrimp in Mexican waters. The Mexican fishermen claim that they can not compete with the low production costs and wages of the Japanese.

**A GAS HARPOON** has been developed according to a Norwegian report. The new whaling harpoon has a shell which, after entering the body of the whale, releases 2.5 cubic feet of carbonic acid gas. The gas, when released from the shell spreads rapidly through the body of the whale and kills it within two seconds. The gas then causes the whale to float to the surface without having to have air pumped into the body. The gas harpoon was scheduled to be tested off Iceland recently.

**METAL LOBSTER TRAPS** have been the subject of a thirty day study conducted by the Canadian Department of Fisheries in the waters off Yarmouth, N. S. With the aid of professional divers, a diving chamber, underwater television and movie cameras, scientists and non-technical personnel have invaded the bottom of the sea to observe the lobster.

The object of the research is to determine if metal lobster traps are more economically practical than wooden traps. The present experiments include not only the old type steel traps but also new steel traps with three fishing heads, the trap opening on the bottom and the catch locks on the ends; aluminum traps with catch locks hooking under the bottom and aluminum and fibreglass lobster buoys.

**AN ALUMINUM SKIFF**, powered by a Diesel, is the latest development in small craft for the B. C. fishing industry. For many years, salmon and herring seiners have carried a plywood, gas-engined skiff on deck which is used by fishermen to tow the net out to position and then close the mouth of the purse seine.

**ITALIAN TRAWL NET DESIGN** is being improved by the FAO and scientists of the Sea Fisheries Research Station, Haifa, Israel. Investigations are being made into the design, construction, behaviour under water, and efficiency of the widely used Mediterranean net.

The net is designed on long experience, but it is hoped that some changes can be made to increase its efficiency. The improvement program consists basically of measuring the dimensions and shape of gear during fishing and the forces which act upon it.

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## BOAT & GEAR MART

Classified Advertising Rates: \$1.00 per line, \$5.00 minimum charge. Count 9 words to a line. Closing date, 25th. National Fisherman, Goffstown, N. H.

### FOR SALE

Cruisers, draggers, auxiliaries—all types and sizes. If you are in the market for anything in that line, please write us—no inquiry too small to merit attention. KNOX MARINE EXCHANGE, INC., CAMDEN, MAINE.

### EXTRA SPECIAL BOAT SALE

Three fully equipped and well maintained boats for sale at bargain prices.

*Fannie*—80 foot length of 27 ton displacement with 180 hp. Cummins Diesel engine. Price \$9,000.

*Chester T. Marshall*—75 foot length of 23 ton displacement with 175 hp. Buda Diesel engine. Price \$7,500.

*Grace M. Cribby*—59 foot length of 15 ton displacement with 135 hp. Cummins Diesel engine. Price \$6,000.

Will consider package offer for three boats at reduced prices. Contact Consolidated Lobster Company, Gloucester, Mass. or your broker.

### BOATS AND SHIPS FOR SALE AND CHARTER

Purse seiners, draggers, trollers, freezer vessels, tugs, barges, water taxis, cargo ships, tankers, passenger ships, dredges, yachts, surplus type vessels and used marine equipment. World-wide contacts. JERRY'S BOAT SALES, 310 West 7th St., San Pedro, Calif.

### GOVERNMENT SURPLUS EQUIPMENT LIST

Buy surplus direct from Government at tremendous savings. Boats, motors, gear, machinery, power tools, truck, jeep, hundreds others. List \$1.00. Surplus Bulletin, Box 169NAE, East Hartford 8, Conn.

### DRAGGER "BLUEFIN" FOR SALE

Dragger *Bluefin*, Newport, R. I., fully equipped, now fishing. 62 foot overall, 15½ foot beam, draft 7 foot, powered by 170 hp. Superior Diesel, 3:1 reduction, loran, radio and Fathometer. Must sell. Moving out of State. Sacrifice. Tel. Vi 7-7641. A. Fahlen, 24 Almy St., Newport, R. I.

### SCALLOP DRAGGER FOR SALE

Built, September 1952, at So. Bristol, Maine. 78' x 18' x 9'8", 4 x 4 double oak frames, oak planking. 280 hp. medium duty Atlas Diesel engine, 750 rpm., pilothouse controls, 2 to 1 reduction gear. 5 kw. tailshaft generator, 115 volt D. C. bank of batteries. Lister auxiliary, 5 kw. generator, air compressor, water pump. 50-watt telephone 2 Lorans, Bludworth D. F. Hathaway Winch #50, 2 years old. Will ice 80,000 lbs of fish. Boat fishing out of New Bedford at present. Ray Larkey, 12 Greco Terrace, No. Arlington, N. J. Phone Kearny 3-7486.

### TRAWLER FOR SALE

Prize catch, fishing trawler, steel 114', excellent condition, completely outfitted, operating, 300,000 lb. cap., 625 hp. Diesel; immediate sale. Brooklyn, N. Y. Phone Cloverdale 2-4400.

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## THE HARRIS COMPANY

PORTLAND, MAINE

Specializing in Fishing Boat Supplies

Marine Hardware — Dragging Equipment  
Electronics — Fuel — Groceries

### DRAGGER "ALTHEA J" FOR SALE

42' x 12'6" x 5'6", built by Gamage, GM 6-71 2:1 reduction, Hudson American telephone, Bendix DR-10 depth sounder, Hathaway winch. Boat and equipment in good condition. Now working. Complete \$5,000. Call TE 6-4298 after 6 PM or write N. Schmidt, 462-76th St., Brooklyn 9, N. Y.

### FISHING JOB WANTED

Have been in this Country 2 years and don't know anything about fishing in U.S.A. Would like information. Am able to supervise construction and fishing of Danish and Scottish seine net fishing. Been steam trawling 7 years, able to mend and splice wire. Age 52, references from 1926. Will go anywhere for good pay. Address: Harald Thygesen, 580 Madeline Dr., Pasadena 2, Calif.

### BOAT FOR SALE

New work boat, 60' x 18' x 5', good sea boat. Very sharp, Gray Diesel good as new, suitable for commercial fishing or freighting, with or without dredge rig. Tel. Hampton 3-8076. Willie King, 3310 Kecoughton Road, Hampton, Va.

### SAVE WITH UNUSED SURPLUS MARINE ENGINES

Unused, Continental "Commando" 175 hp. at 2600 rpm. heavy duty gas engines, 6 cyl. 4½" x 5½", 12 volt system, 1½:1 clutch & reduction gear. Low price.

Factory new, not surplus, G.M. 6-110 Diesel w/4½:1 hydraulic reverse & reduction gear, heat exchanger, etc. New type blower. Special low price.

Unused, Fairbanks Morse 35F14, 6 cyl. 14" x 17", 450 hp. 300 rpm. direct reversing. Special low price.

Many other engines, tugs, barges, etc. Eveready Supply Co., 805 Housatonic Ave., Bridgeport, Conn.

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# why Henry Luhrs SEA SKIFFS recommends Chrysler Marine Engines



**HENRY LUHRS**, President (right) and Frank Evaldi, Plant Manager, Henry Luhrs Sea Skiffs, Inc., oversee installation of twin 125-h.p. Chrysler Crown Marine Engines.

**31-FT. HENRY LUHRS SEA SKIFF** with flying bridge, powered by twin Chrysler Crowns. 27-ft. model is also powered with twin Chrysler Crowns. 22-ft. Shelter Cabin and Open Sea Skiffs powered by 95-h.p. Chrysler Ace.



**FREE!** Send for 1958 Chrysler Marine Engine Catalog. 30 pages in color: Engines, specifications, features, applications. Address: Dept. 4J, Marine Engine Division, Chrysler Corporation, Detroit 31, Michigan.

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Henry Luhrs has specialized in designing and building Sea Skiffs for over 25 years. During this time he has painstakingly refined the design, modified and perfected the structure. He has found, too, that by far the best power for his boats is Chrysler Marine Engines. For Chrysler Power gives his customers the speed they need in a sports fisherman, plus exceptional economy at long distance cruising speeds and greater efficiency at low, trolling speeds.

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